



**Local Government Roundtable**  
**Call to Action: Brand Your Jurisdiction as a “Smart Community”**  
**April 1-3, 2015**  
**The Mission Inn**  
**Riverside, California**

**Summary Report**  
*With Participant Edits*

**Purpose and Focus**

- Engage a “critical mass” of key Local Government Officials throughout California to become active champions in closing the Digital Divide and promoting Digital Inclusion.
- Exchange information about the key roles of Local Government Officials in closing the Digital Divide: Policy Leader; Planner; Regulator; Consumer; Provider of Services.
- Identify opportunities and strategies to accelerate broadband deployment and adoption by encouraging local jurisdictions to become a “Smart Community” pacesetter.

The 2015 Local Government Roundtable brought together 70 leaders from across California, 19 of who are elected officials, representing 16 Counties and 27 Cities, 2 State Agencies, 5 Broadband Regional Consortia, 4 statewide associations, 1 federal agency, and 5 broadband companies. The Opening Program on April 1 featured a welcome from City of Riverside Mayor Rusty Bailey, remarks from Congressman Pete Aguilar, and an overview of the California Telehealth Network by CEO Eric Brown. CETF Directors Barbara O’Connor, Rich Motta, Lloyd Levine, Carol Whiteside, and Darrell Stewart also welcomed participants, underscoring the importance of Local Government Leadership to close the Digital Divide. The Roundtable format was presentations on specific topics followed by comments and conversation by all participants. The following summarizes the highlights from each session along with conclusions and next steps.

**Day One: Thursday, April 2, 2015**

**Welcome and Purpose of the Roundtable**

Lloyd Levine, CETF Director, and Advisor, University of California, Riverside School of Public Policy

- CETF and its partner organizations are grateful for the leadership and commitment of Local Government Officials to close the Digital Divide in California and the Inland Empire.
- The main challenges residents face in this region are lack of Digital Literacy skills and the cost of a computing device and broadband service.
- Access to high-speed Internet is a community economic tool. Mayor Aguilar-Curry of the City of Winters has set a great example of how to leverage leadership to increase the number of residents who are connected to broadband at home.

Sunne Wright McPeak, President and CEO, California Emerging Technology Fund

- The California Emerging Technology Fund (CETF) was directed to be established by the California Public Utilities Commission (CPUC) with \$60M seed capital contributed by AT&T and Verizon as a public benefit out of mergers in 2005. The mission of CETF is to close the Digital Divide in California.

- Broadband is a generic term for high-speed Internet access and includes both wireline and wireless technologies. CETF set the goals of 98% deployment (98% of all residences having access to high-speed Internet service) and 80% adoption (80% of all households using broadband at home with no region or demographic group less than 70%) in a decade (by 2017) as the definition of success in closing the Digital Divide in California. The Legislature has adopted in law the goal of 98% broadband deployment.
- CETF decided to use all of the seed capital to achieve the deployment and adoption goals in a decade. Although \$60M is a substantial sum, given the geographic size of California and the magnitude of the challenge statewide, to accomplish the goals it was clear that the seed capital had to be leveraged several-fold, beginning with engaging leaders at all levels of government and in existing civic and community organizations; thus, the reason for convening the Local Government Roundtable. There also had to be regional collaboration to get to economies of scale for deployment, hence the rationale for the establishment of Broadband Regional Consortia and funding by the Legislature.

Vito Chiesa, President, California State Association of Counties, Supervisor, Stanislaus County

- The California State Association of Counties (CSAC) is pleased and honored to be a co-sponsor for the Local Government Roundtable and a champion for “Smart Communities” because broadband technology can help counties address several issues.
- Great statewide disparity is a major obstacle. The work of the California Partnership San Joaquin Valley is a good model to inform CSAC strategy for California as a state. It is critical to engage the leadership in each region in order to accelerate broadband deployment and adoption. CETF has been a broadband leader in the state for the past 8 years. Now, local leaders present at the Roundtable need to become champions and pick up the mantle after CETF sunsets in 2017.
- The lack of technology access impacts rural and urban poverty, but technology also can help deliver and improve services: when our educational attainment, workforce development and job growth is stagnant, online learning can be a digital pathway for opportunity; when we can’t attract doctors, telemedicine can provide valuable assistance; and when we are in the middle of a drought, rural technology can improve delivery of clean water and access to markets.

Dennis Michael, 1<sup>st</sup> Vice President, League of California Cities, Mayor, Rancho Cucamonga

- The League of California Cities (LCC) is pleased to support the 2015 Local Government Roundtable. LCC current telecommunications policy was developed about a year ago after the 2013 Roundtable. Broadband adoption needs to be a priority for every region. Even affluent communities have pockets of low-income residents who are underserved. There needs to be a discussion on how to support these residents.
- The primary reason for local governments to be involved in accelerating broadband deployment is to improve the quality of life or residents and streamline the delivery of services. Elected Officials need to ensure key personnel have the passion, knowledge and skills required to close the Digital Divide.
- Rancho Cucamonga Community Development Program participated in the Turning Red Tape into Red Carpet Awards. The awards recognize outstanding public sector programs in economic and business development that create jobs, have a positive economic impact with measurable results, strengthen public-private partnerships, are innovative, effective and timeliness in processes, and can be recreated. Development plans can be submitted online at <http://svlg.org/redcarpet>.

Bob Williams, 2<sup>nd</sup> Vice Chair, Rural County Representatives of California, Supervisor, Tehama County

- Rural County Representatives of California (RCRC) appreciates being invited to the Local Government Roundtable because small rural counties, such as Tehama County, often lack access to broadband.
- Small regional providers are working with Tehama County to identify existing towers that can be used to provide broadband connectivity. This can happen in other counties.
- This Roundtable will help identify additional ways to advance digital inclusion strategies in the region and throughout California, especially for rural counties.

## California's Strategies to Achieve 98% Deployment: The Role of the California Public Utilities Commission

### Ryan Dulin, Director, Communications Division California Public Utilities Commission

- The California Public Utilities Commission (CPUC) promotes high-speed Internet access with the goal of 98% broadband deployment statewide in administering the California Advanced Services Fund (CASF). CPUC has a record of successful broadband deployment CASF projects and expects to allocate all of the funds. CPUC continually works to improve the accuracy of the broadband availability data, using public feedback from groundtruthing testing and surveys. CPUC challenges include: compilation of accurate groundtruthing to fund deployment proposals and shape broadband investment strategies; policy models; and public-private infrastructure initiatives going forward.
- The current regulated surcharges that generate revenue into CASF are not enough to fund advanced telecommunications equity throughout the state. California needs a state broadband strategy and the CPUC may work towards that in the future to: match federal and state monies and grants; require public benefit from mergers; attract telehealth federal dollars and insurance industry support for broadband; prioritize economic development corridors for broadband initiatives; partner with government, economic development agencies, farm bureaus, public safety and first responders, schools, universities and colleges for GIS mapping projects, resource deployment organized around broadband, and "dig once" permitting; share information and access to infrastructure already in the ground; and cooperate and address cost effectiveness.
- Additional challenges are: "one-size-fits-all" approach in both rural and urban areas; current CASF subsidies are insufficient to incent providers to apply; a lack of coordination between and among multiple permitting agencies; a lack of interconnections among existing broadband infrastructure; and limited resources for continued CASF funds for the future. Next steps include: implementation of a state broadband strategy; coordination with federal efforts; review of mergers to negotiate tangible and targeted public benefits; definition of priority areas in California; coordination with other state and federal agencies to leverage resources and coordinate needs (such as emergency services); and sufficient broadband beyond the household (health centers, schools, businesses, libraries, farms).

### Comments and Themes from Roundtable Discussion

- Demand for bandwidth is growing and California must consider adopting higher speed thresholds than the current 6 Mbps download and 1.5 Mbps upload, such as the new FCC minimum speeds of 25 Mbps download and 3 Mbps upload. CPUC is re-evaluating speed standards for economic competitiveness because in today's "fiber world" 6 Mbps is insufficient.
- CETF always has recommended a dynamic definition of adequate broadband speeds sufficient to meet prevalent consumer applications at any given point in time, recognizing that there is a spectrum of consumers including households, anchor institutions, and employers (small and large). Further, it must be understood that a commitment to last-mile broadband projects to reach unserved households requires cost-effective middle-mile projects for backhaul which depends on economies of scale and regional approaches, but without unnecessary disruption to services provided by incumbents. New public policy and additional funding will be needed to achieve the 98% deployment goal.
- Local leaders are encouraged to submit comments and questions to both CETF and the CPUC.
- There is a significant need throughout California—in both rural and urban jurisdictions and even those considered "affluent" to assure affordable high-speed Internet service for all low-income households.
- There is a need for adequate infrastructure with adequate bandwidth to meet consumer demands and to accommodate anchor institutions. California should consider encouraging fiber deployment to foster "gigabit" communities.
- Broadband deployment in California is challenging despite CASF subsidies because the State has rigorous and extensive permitting and regulatory requirements. Additionally, California has expansive rural areas which are difficult and expensive to reach and serve. Gigabit deployment depends on the relationship between the private sector and government and the availability of subsidies coupled with effective public policy.

## **The Original Vision for SmartRiverside: What It Takes to Be a “Smart Community” and Why It Matters**

Dr. Ronald O. Loveridge, Director, Center for Sustainable Suburban Development, University of California, Riverside (Former Mayor of Riverside and Former President of League of California Cities)

- The Digital Divide is a marker of greater divides; and addressing it addresses other divides. It is about today’s poverty and inequality, and is the issue of our time. As the region grows, digital awareness and literacy must be imbedded in business plans and expansions programs for cities to be sustainable.
- A successful city is a Digital City. A resource on this concept is the book “*Citizenville: How to Take the Town Square Digital and Reinvent Government*,” by Gavin Newsom.
- Riverside was selected as the “Intelligent Community of the Year” in 2012, making it the third American city to be selected and bringing Riverside to center stage in the global market. SmartRiverside provided more than 5,000 computers and training to residents. The City built a fiber network to connect its operations as well as the University Research Park. A free WiFi network offered up to 1 Mbps service through 1,600 access points, and exploding demand led multiple commercial carriers to deploy high-speed broadband across the jurisdiction. An array of award-winning e-government applications ride on the network, from dynamic traffic management to graffiti tracking and removal. Interested local governments and regions can use the Intelligent Community self-assessment available online to evaluate digital sufficiency and provide a framework for broadband accountability.

### Comments and Themes from Roundtable Discussion:

- Local Government Officials must see the “bigger picture” and seize our local and regional economic destinies by leading on adopting policies and ordinances to close the Digital Divide: grow political will, social capital, civic engagement, public-private partnerships and high-tech commitments; develop a process that leverages rights-of-way (ROW); adopt “dig once” permitting ordinances; and collaborate with state, county, city, and local government agencies to transform scarce resources and political strategies into Digital Inclusion “best practices” for Smart Communities.
- SmartRiverside was a priority for the City of Riverside and was pursued in spite of challenges, until maintenance costs became prohibitive and providers stopped supporting outdated equipment, infrastructure, and software. When AT&T withdrew from SmartRiverside, it was estimated that it would cost the City about \$2M to replace the network and \$800K annually to maintain. Other jurisdictions have had similar experiences, such as Mountain View when Google Fiber abandoned the downtown corridor WiFi pilot. Both cities have negotiated continuation of public WiFi in selected spaces.
- California should be globally competitive in a digital world. Local governments can benchmark themselves using the Intelligent Communities self-assessment to measure broadband success and provide a road map to improved future ratings.
- The biggest challenge, and most important first step, is getting people to the table to share a big vision and then identify issues and resources. That is why leadership is pivotal to closing the Digital Divide.
- CETF has resources to help local leaders: *A Resource Guide for Local and Regional Government Leaders* with sample policies and *Wired for Wireless?* with lessons learned from government-led WiFi projects.

## **Spotlight on the Inland Empire: An Emerging Smart Region**

Paul Granillo, President and CEO, Inland Empire Economic Partnership

- California is an economy of regions that have a mix of strengths and weaknesses. The Inland Empire is one of the fastest growing economies and is currently #2 in job creation, behind Los Angeles. However, poverty is prevalent and only 20% of the population have a college degree. The Inland Empire plays an important role in the economy of the state as it is one of the six major logistics regions in the world. It is critical to identify Digital Inclusion champions and leaders to fight for the economic future of the region. There is danger ahead for regions like the Inland Empire unless collective work is conducted by schools, organizations, community colleges and government to close the Digital Divide.

- The biggest employer in the region, UPS, is testing autonomous driver technology. This will result in current UPS drivers losing their jobs in about 10 years. Computer knowledge and technology skills are critical for the current and future workforce.
- The Inland Empire Economic Partnership (IEEP) convenes leaders in the region to engage them on key issues and initiatives. Children in the region will be negatively affected by the lack of broadband adoption and availability. IEEP is committed to promoting broadband deployment and adoption.

Martha van Rooijen, Manager, Inland Empire Regional Broadband Consortia

- The Inland Empire Regional Broadband Consortia (IERBC), one of the 16 Regional Consortia in California funded by CASF, includes a spectrum of private and public leaders, which provides a foundation of leadership for future implementation. IERBC developed a comprehensive Business Plan for constituents with practical guidelines on how to become a smart region. It focuses on closing the Digital Divide with several strategies. The Business Plan is summarized in an executive summary and is available on the IERBC website at <http://www.iebroadband.com>.
- Low-income residents are increasingly disenfranchised from government and public services without home broadband access. This problem must be addressed in the Inland Empire and requires assistance from the State and federal governments.
- IERBC has made a special effort to work with all the affordable housing organizations in the Inland Empire to encourage them to submit applications to CASF for AB1299 funding to provide broadband connectivity in publicly-subsidized housing. Several applications from the Inland Empire already have been submitted to CPUC for CASF funding. The San Bernardino County Housing Authority has been especially active in moving forward on this opportunity and is very committed to Digital Inclusion.

Lea Deesing, Executive Director, SmartRiverside

- The main goal of the SmartRiverside program is to empower the community through technology and education. The organization has a Board that includes leaders from civic, education and private sectors. It is important for these leaders to look at the changing needs of the City of Riverside.
- SmartRiverside 2.0 includes a local workforce development program to prepare residents to fill in the million jobs forecast to be generated by 2020. One of the most successful SmartRiverside programs is the Coding for Kids Program, where participants are taught robotics and coding.
- The City of Riverside is mapping and assessing its infrastructure and offering services and information through a virtual City Hall. Special attention has been paid to fiber readiness.

Konrad Bolowich, Assistant City Manager, City of Loma Linda

- The City of Loma Linda has 27,000 residents, 5 hospitals, medical and dental schools, and a history of innovation and creation. A building code amendment made it possible to deliver a gigabit to homes and businesses. Since the cost of digging and covering the streets using traditional procedures was too expensive, the City of Loma Linda used microfiber and micro trenching to drop fiber. It is no longer sufficient to be a Digital City. Instead, we need to focus on becoming a Digital Region.
- There is a need to adopt a goal in the Inland Empire to keep all the students in the region that graduate from top schools—it is essential to be the top talent in the Inland Empire. Becoming a Smart Region will further that goal, and, in turn, will augment economic prosperity.
- The cost of burying a piece of conduit (after construction) is very high so Loma Linda is looking at a new product called micro fiber. The City has adopted a new ordinance that places a data cabinet in each home. Although developers and homebuilders initially were resistant to this requirement, they now are seeing this additional infrastructure as a value-added product.

Mike Powers, CEO, Greenfield Communications

- Greenfield Communications started under the auspices of Southern California Edison and focused on conducting business-related transactions for developers to install fiber into the home.

- Although fiber is considered unlimited, there can be limitations depending on what is in place on each end. The use of passive fiber is the best approach. The company can offer up to a gigabit, which makes a community very attractive for commercial development and enterprise use. There should be a move to symmetrical networks (with upload speeds comparable to download speeds).
- Greenfield Communications is in the process of connecting low-income communities and updating systems for communities. Residents no longer need to rely on the incumbent carrier as a jurisdiction is able to develop, design and deploy a fiber plan.

Emil Marzullo, CEO, P3 Global Solutions

- P3 Global Solutions discovered that telecommunications companies in the San Bernardino County were not only putting phone lines underground but fiber as well. P3 Global Solutions worked with the telecoms to use the fiber already underground for a meaningful project. To build a strong economy, the Inland Empire needs land to build, an educated workforce, and high-speed Internet access.
- Collaboration between engineers, designers, and local governments is uncommon. State legislation is needed to encourage local governments to collaborate with other parties; otherwise, cities and communities will continue competing instead of cooperating with one another.
- Economic development agencies need to be pioneers: identify and work with those innovative people in the government that can improve communities and make sure the program has a legacy after the identified elected officials are out of office.

Michael Mack, CEO, Netreva

- High-speed Internet access is critical to small businesses and their needs must be taken into account in the economic development and broadband deployment plans prepared by cities or agencies. Broadband is more cost-effective for many businesses when deployed at scale in developments.
- Often small businesses move into office space and then realize their lease does not cover all of the costs associated with broadband access and that ultimately affects their bottom line. These businesses often rely on enterprise-level speeds to compete and expand. They need access to information.
- Government officials need to understand the importance of high-speed Internet access to economic development and to plan to accommodate small businesses as well as large employers to optimize economic prosperity.

Bill Bayne, P.E., Public Works Commissioner, City of Redlands

In the interest of time, Bill Bayne concurred with the other IERBC presenters and deferred his individual comments to speak with participants during the Reception Program. He is available to answer questions.

Comments and Themes from Roundtable Discussion:

- For the Inland Empire to remain competitive it is imperative that there is continued investment in promoting the broadband deployment and adoption so that all institutions, employers and residents have access to high-speed Internet service. This is true for all regions in California.
- There are various programs and initiatives underway in individual jurisdictions to provide high-speed Internet access to residents and other customers, but these efforts need to be leveraged and augmented by coloration and action at a regional level.
- The Inland Empire, with the budding collaboration between the Inland Empire Economic Partnership and the Inland Empire Regional Broadband Consortium, provides a model for other Regional Consortia to consider. There is a need for continued regional collaboration to achieve economies of scale to augment other regional initiatives and to accelerate economic prosperity.
- Having the Local Government Roundtable convene in the Inland Empire to spotlight the work in the region was a helpful dynamic to reinforce the value of their efforts and coalesce their commitment to follow-through action. It also underscored for other stakeholders the importance of working together to close the Digital Divide.

## **Spotlight on the City of Los Angeles: Digital Inclusion in the Largest City and OurCycle LA**

Steve Reneker, IT General Manager, City of Los Angeles (Former Director, SmartRiverside)

- The City of Los Angeles released a Request for Information (RFI) in 2014 to build a city-wide Internet network and heard from industry that 2 things needed to change: streamline the permitting process and make City assets available for deployment (such as rights-of-way, streetlight poles, underground utility vaults to install fiber huts). This required leadership from the Mayor and the City Council to establish a Digital Infrastructure Planning Group to coordinate efforts among all departments. For example, the Los Angeles Department of Water and Power (LADWP) has an extensive underground system with reach throughout the jurisdiction and can be a critical player, but has certain constraints such as security and confidentiality that has to be addressed. The City studied the experiences in other cities (Kansas City, Austin, Chattanooga) and obtained input from Loma Linda. Given the geographic size and density of population, the City was split into 4 zones to encourage participation and competition among the incumbents and to attract a new market entrant(s). The City also is seeking public benefits, such as free wireless access (hot spots) in parks and community computer training centers. The intent is to make a decision and begin network deployment in early 2016.
- The City of Los Angeles also is committed to Digital Inclusion. Under the leadership of the Mayor and City Council, the City designed and is implementing the OurCycle LA to: (1) refurbish a minimum of 2,500 computing devices out of approximately 10,000 salvaged computers (outdated City devices that vendors no longer would support); (2) provide Digital Literacy training to 2,500 low-income community residents; (3) distribute 1,250 refurbished computing devices at no cost to low-income community residents that complete basic Digital Literacy training and show proof of subscribing to high-speed Internet at home for the first time; (4) donate 1,250 of the remaining refurbished computing devices to non-profit organizations that serve low-income community residents; and (5) minimize electronic waste by recycling all computer devices that cannot be refurbished. The program is expected to facilitate a minimum of 1,500 new household broadband subscriptions, provide computer refurbishment training to 75 disadvantaged youths and adults, and support 2 new full-time jobs. OurCycle LA is a collaborative partnership between the City of Los Angeles and several non-profit and for-profit organizations serving disadvantaged communities: CETF, Los Angeles Cleantech Incubator, human-I-T, Isidore Electronics Recycling, Youth Policy Institute, LA Shares, Good Tech America, and other community groups. The City will develop a long-term business plan to ensure the sustainability of this model program for the future.
- It is important to understand that launching a project is one thing and sustaining it is another. Leadership always is essential to launch a program, and a sound business plan is required to sustain it. It would be helpful to have a “how-to guide” based on the SmartRiverside and OurCycle LA experiences.

### Comments and Themes from Roundtable Discussion

- It is important to study the experiences of other jurisdictions before initiating a major project. OurCycle LA is documenting lessons learned and best practices to share with other local governments. A final evaluation is a critical component of the program.
- CETF and the California Department of Technology Director should organize a workshop focused on the experiences and best practices of SmartRiverside and OurCycle LA.
- The Intelligent Communities assessment framework is very useful for cities to evaluate opportunities.
- Leadership is pivotal and a viable business model is essential for success of any project.

## **The Digital 395 Experience: Opportunities for Eastern Sierra Communities Lessons for State Route 299**

Mike Ort, President and CEO, Praxis

- Building a sustainable network, especially in “thin” markets, is always a challenge. However, broadband is a transformative infrastructure, as was the Los Angeles Aqueduct and the federal Interstate Highway System. Communication, outreach and education were keys to building Digital 395.

Digital 395 spans more than 600 miles along the Eastern Sierra from Reno to Barstow which was funded \$109M from NTIA ARRA and CASF. It is a 432-strand underground fiber optic middle-mile project with 11 node sites for local distribution, 275 anchors and 49 points of interconnection; and has speeds from 150 Gbps (2 strands) to 8.1 Tbps. It was a 3-year project: 2 years (24 months) of permitting and administrative closeout and 17 months of actual construction. Permitting challenges were greater at federal sites than in California and archeological sites were a large percentage of the costs, revealing that it is more challenging to get through government bureaucracy than it is to bore through granite.

- Digital 395 bandwidth is greater than Google fiber deployment projects and also offers support services and digital educational solutions at significant cost savings. However, 40% of those prospective customers that could connect to Digital 395 have not signed up for services. The paradigm has to shift from a “T1 mindset” to gigabit connectivity coupled with long-term sustainability. Leadership from Local Government Officials is needed not only to bring in high-speed Internet networks to their communities, but also to encourage anchor institutions and major sectors to subscribe for service.
- Praxis hopes to lessen these challenges in securing funding and building Digital 299 in the Redwood Coast, especially in the time required for environmental assessment and permitting. The CASF application will be submitted within next 30 days for an estimated \$40-50M. Weaverville, the county seat for Trinity County of which 78% is federal forest land, has the cheapest power in California, so there are opportunities for attracting data center business. There is also opportunity to attract transcontinental cables to land in the state instead of being forced to Oregon or Mexico or Oregon. Digital 299 can be an example of spurring rural economic development.

#### Kevin Karunchio, County Administrative Officer, Inyo County

- Privately-funded broadband deployment in Inyo County is not economically-viable where 93% of the land is federal and less than 2% is privately owned. Digital 395 is a great asset for economic development and quality of life. The region could and should be doing more with the opportunities that Digital 395 brings to connect to major users, anchor institutions, and last-mile providers.
- Inyo County released a Request for Proposal (RFP) for the Obsidian Project in November 2014, looking for a partner to design, construct and operate a County-owned, open access, fiber-to-the-premise gigabit network that will serve every building and parcel in the Owens Valley and some neighboring communities. If this 21<sup>st</sup> Century strategy succeeds, the Obsidian Project will bolster Inyo’s economy by helping local businesses better use technology to retain customers and expand services while, hopefully, attracting technology firms and entrepreneurs to the area.
- With designs and projected construction costs in hand for the Obsidian Project, Inyo County now is in negotiations with Praxis, analyzing the best ways to fund the project and considering grant funding similar to what was used to construct Digital 395. The plan is for a contractor to operate the network on behalf of the County and be open for use by all Internet services providers. It will allow access by the City of Bishop, other local governments, tribal reservations, and Mono County, while providing 100 megabytes of Internet service for less than \$80 a month for every home and business.

#### Judy Morris, Supervisor (Chair of the Board), Trinity County

- Trinity County has been working on broadband along State Route 299 (now called Digital 299) for about 5 years. There was a previous CASF grant to a company which failed and unfortunately “locked up” the area for several years and prevented other service providers from applying for a CASF grant to serve the area. Praxis recently became interested and has been exploring the feasibility of the project with Redwood Coast stakeholders. Their Digital 395 experience was very helpful.
- Digital 299 could attract technology firms to help replace the loss of the forest industry in the region. This was a strategy that worked in part with Redwood Coast Connect on Highway 36. Digital 299 would help the entire region: Humboldt, Del Norte, Shasta, and Tehama Counties.
- Digital 395 already has been transformative for the Eastern Sierras, especially for economic development, with concrete examples of increased demand and use. With that case example in mind, Redwood Coast Counties are facilitating meetings for Praxis with permitting agencies.



#### Lori Acton, Councilmember, City of Ridgecrest

- Cities in the Eastern Kern County and along Digital 395 know that broadband is critical, in part because there is military “brain power” with technology expertise and demands for high-speed Internet access. There is a need for collaboration because fiber lines can’t be constrained by political boundaries.
- Rural communities know they need to diversify their economy and broadband is key infrastructure to accomplish that goal. But, getting high-speed Internet access has to be more timely than the recent experience of taking too long to install a network for a new call center for a telehealth clinic.
- There must a continual push by city leaders and businesses to obtain adequate broadband connectivity.

#### Ryan Sundberg, Supervisor, Humboldt County

- Digital 299 will benefit schools, healthcare, City of Trinidad, and Hoopa Reservation. Thus, the Humboldt County Board of Supervisors has worked closely with Praxis to pursue the project.
- Digital 299 has required a regional approach with collaboration across county boundaries.
- As the first Native American Humboldt County Supervisor and a longtime member of the Northern California Tribal Council, Ryan Sundberg is happy to serve as a liaison with other tribes if needed.

#### Louis Fox, President and CEO, CENIC

- CENIC is a statewide nonprofit entity established to serve California’s K-20 research and education institutions with cost-effective, high-bandwidth networking, and has 3,800+ miles of optical fiber. There are members in all 58 counties and over 10,000 sites which connect to the network via fiber-optic cable or leased circuits from telecommunications carriers. CENIC actually is 3 networks that operate simultaneously as independent layers on a single infrastructure: CalREN-Digital California (DC), for daily use for e-mail, web browsing, videoconferencing; CalREN-High-Performance Research (HPR), for high-performance research for big-science “power users”; and CalREN-eXperimental Developmental (XD), for bleeding-edge research on the network itself. CalREN then connects to a national network with 88 other peering partners (including Google, Microsoft, Amazon), enabling worldwide collaboration through international peering (Pacific Wave). CENIC makes California research and education part of a worldwide community.
- CENIC now is connecting public libraries, such as in Beaumont, with significantly increased bandwidth at much lower costs. CENIC also in focusing on community colleges, K-12 last-mile school sites; 100 Gbps backbone and research initiative; and new commercial partnerships. Anchor institutions tend to be good customers to help support a network through demand aggregation. CENIC serves as the E-rate consortium for schools and will serve that role for libraries that opt in. However, some counties and cities have been hesitant to switch libraries from their own networks to CENIC and/or contend with contracts with incumbents. CENIC also seeks to assist the public sector in the management of big data.
- CENIC is delighted to partner with other projects and has done so with several enterprises. However, CENIC isn’t able to be everywhere in the state. However, CENIC may be able to help with network deployment in Tehama County.

#### Comments and Themes from Roundtable Discussion:

- CENIC is a great network for schools and libraries, but is constrained to serve the rest of a community.
- Trinity County wants to explore how CENIC can partner with the local library.
- The government needs to tackle large projects that don’t make economic sense for the private sector.
- There are growing psychiatry needs in prisons, which could be served by telemedicine, but challenges to building telehealth networks include: contracts that are difficult to break; policies must be changed to allow agencies to take advantage of new opportunities with both state and federal agencies; and the significant investment of time and coordination among partners to make it happen.
- Anchor institutions, federal and state agencies, non-profits, business and other stakeholders in a region should be involved throughout all conversations and planning about projects such as Digital 299. The process can be expedited by bringing all permitting and environmental together, coordinating a timetable and securing agreement in writing as to the performance of each agency.

## **Spotlight on the State of California: Leadership to Accelerate Broadband Deployment and Adoption – Support for Local Government Officials**

Carlos Ramos, California CIO, Director, Department of Technology, Chair, California Broadband Council

- The California Broadband Council (CBC) will be very focused on action and accountability: California's primacy as the 7<sup>th</sup> largest economy in the world depends on an agile, "disruptive" strategic broadband plan. The CBC is made up of State Agency chief executives, Senate and Assembly Utility Committee Chairs, and the California Emerging Technology Fund. CBC Work Groups are committed to streamlining State processes: remove barriers for local deployment; accelerate tribal consultation for broadband access and deployment on tribal lands while respecting sacred areas; catalog, make available, and build out existing State infrastructure; work with Department of General Services real estate and properties; leverage co-location and sensible permitting with local providers, governments and nonprofits; identify surplus state properties; advance computer refurbishing and recycling; brief Legislators on technology policy and legislation; and interface with the federal government. CBC will be very active because it recognizes the importance of high-speed Internet access across every region in California.
- There are major State policy and program challenges and opportunities to successfully implement social applications and technology, such as: (a) Affordable Health Care Act (successful deployment of technology worked to insure millions nationwide and in California); (b) high unemployment rates in a tight job market (Employment Development Department modernized unemployment insurance claims online and streamlined job seeking tools by launching CalJOBS that connects employers with qualified candidates, and candidates with access to jobs from nearly 16,000 websites, including federal, state, and local government job boards); and (c) response to emergencies and natural disasters (capability to immediately engage all State executives in multiple locations to respond to unexpected events).
- The California Department of Technology is changing State practices to open up State contracts for multiple competitors. A refreshed telecommunications bid process awarded 26 different contracts where previously only 4 providers merged to submit 2 eligible bids. The challenge is how to offer an efficient and fair opportunity to partner with and add non-traditional providers such as Digital 395 and CENIC to the eligibility pool, especially for master contracts. The Department also is working with FirstNet building a nationwide network for first responders. The FirstNet project is an opportunity to go beyond providing emergency response to help close the Digital Divide. Another opportunity is to work with the new Secretary of State to get all residents online to better participate in the voting process.

### Comments and Themes from Roundtable Discussion:

- While 75% of Californians have access to broadband in the home, it is simply not acceptable that 25% (about 10M people) do not and are stuck on the wrong side of the Digital Divide.
- It is imperative that additional broadband infrastructure be built to reach all areas of the state and to ensure adequate speeds to support global competition. Leaders, stakeholders, service providers and community based organizations must proactively work on strategies and policies that add more online and mobile services, and build out infrastructure for disadvantaged and rural communities.
- Rural broadband deployment projects depend on government funding assistance and public anchor institutions as customers to economically feasible.
- Broadband infrastructure can become a target for cyber terrorism, making the need for redundancy and resiliency a key concern for homeland security and emergency services.
- Local communities can lose economic development potential if contracting is done only with when larger service providers. Efforts should be made to encourage local vendors to compete.
- Local Government Officials know that successful sustainability and economic competitiveness must have connectivity. However, that sense of priority isn't always translated throughout the local government departments or at the permitting desks.
- The State CIO and the California Broadband Council can help convey a perspective that broadband deployment and adoption are priorities for the future of California. Local Government Officials participating in the Roundtable and the statewide associations can reinforce the message.

## **Focus from USDA: We're the Federal Government and We're Here to Help You**

### Robert Tse, Chief of Broadband, U.S. Department of Agriculture, California

- Disruptive technologies, such as WiFi in the fields, can be positive forces. New agricultural technologies using broadband are valuable platforms for rural prosperity and economic sustainers: every field, barn, well and warehouse sensor is a prospective customer. New agriculture technology all rely on Internet connectivity to collect and transmit data and need wireless broadband infrastructure on farms.
- Data on agricultural use of broadband hasn't been collected and incorporated into broadband mapping by either providers or the State. Farm fields are left out of measurements for broadband service, but it is critical for rural communities where broadband is the platform for rural economic prosperity, new businesses, and quality of life—distance learning and a skilled workforce; transit and logistics; and direct access to global markets.
- FirstNet is being given the best spectrum bandwidth available and will only use about 2% of the capacity and only during emergencies, so there's opportunity to weigh in on the use of the public safety system. The rules of the system require a public benefit and leveraging of existing networks and systems. The definition of "public safety" for FirstNet was not defined, so rural communities can help shape the concept. First responders and emergency services also are ideal broadband partners for rural communities to leverage regional, state and federal resources. The State of California must be a part of FirstNet services for rural regions and county fairgrounds can be a strategic anchor. FirstNet can be vital to achieving California's broadband deployment goals and federal officials need to hear from California leaders and stakeholders so that the policy discussion is not dominated by other states.

### Comments and Themes from Roundtable Discussion:

- Disruptive agriculture technology in the fields nurtures more efficient use of scarce resources and higher production yields.
- Broadband deployment in farming also will help advance other public interest purposes such as food safety and innovative reuse of waste for energy production for high-speed rail.

## **Day Two: Friday, April 3, 2015**

### **Major "Take Aways" from Day One: Primary Challenges and Opportunities for Thought**

#### Adelina Zendejas, Deputy Director, California Department of Technology

- The California Department of Technology has an Interactive GIS map on their website ([www.cio.ca.gov](http://www.cio.ca.gov)) containing the California broadband map and State properties, which may be helpful for small providers as they develop project plans. Providers should also keep in mind and consider engaging Karen Wong of FirstNet in California and Cynthia Gomez, the Governor's Tribal Advisor. CETF, CPUC and USDA also are available to help and have resources at their disposal.
- Regional Consortia are another important resource and always ready to step up. The Local Government Roundtable is a great opportunity to meet, network, ask a lot of questions and get engaged with various stakeholders from around the state.
- While the remaining funds in CASF are not enough to achieve the State's broadband deployment goals for ubiquitous access and globally-competitive bandwidth, there is still a need for more and better CASF applications to reach unserved areas to demonstrate to Legislators the importance of CASF. It's critical to reach out to Ryan Dulin at the CPUC to give feedback or ask questions about CASF. Cities and counties have to be proactive and think out of the box with regard to broadband: implement "dig once" policies; install broadband in publicly-subsidized housing projects; and incorporate broadband into all sectors and solutions. Broadband is a big issue and there are major challenges, but working together can help overcome them. Engagement of all of the stakeholders and the local, regional, and statewide levels is a key strategy.

### Staci Heaton, Regulatory Affairs Advocate, Rural County Representatives of California (RCRC)

- There are 3 main issues that get the attention of rural Supervisors and other elected officials—drought, climate change, and education—so finding the political will and buy-in is key for people to focus on broadband. It is misunderstood by many as a luxury for personal uses. The discussion has to be reframed so that people understand how broadband is important in every sector: broadband in agriculture; and broadband as a “green strategy” per the Valley Vision report commissioned by CETF which should be considered by the California Air Resources Board in implementing cap and trade.
- The federal government needs to be a partner and customer in major broadband infrastructure deployment projects such as Digital 395 and Digital 299. RCRC can help with those conversations.
- It is critical to secure passage of AB1262 to continue funding for Regional Consortia so that there is a forum for Local Government Officials to work on viable broadband infrastructure solutions.

### Dorothy Holzem, Legislative Representative, California State Association of Counties (CSAC)

- State policymakers need to keep in mind that “one size does not fit all” for counties and Local Government Officials do it best for their communities. Counties shouldn’t be forced to do something, but there can be an effective approach to engaging Local Officials to work together regionwide to meet the needs of their own local communities.
- There is great opportunity to work together to discuss and implement best practices around broadband deployment and adoption. Counties are overwhelmed by so many mandates that Supervisors would welcome assistance in being able to reach constituents and provide services online.
- State and federal elected officials and policymakers need to understand that large segments of rural communities and disadvantaged residents are being left behind which is an economic loss and missed opportunities for public benefits such as homeland security and emergency response.

### Comments and Themes from Roundtable Discussion:

- The State of California still has to decide whether it will opt in to FirstNet and determine next steps. FirstNet is supposed to be a seamless system with no separation between rural and urban. Information can be found online; Karen Wong is the point of contact for the State of California. Input can be sent to Robert Tse at the USDA to be forwarded to federal officials in Washington D.C. Communities, especially rural communities, should provide input to the FirstNet so that California’s perspective is heard.
- CSAC, LCC and RCRC along with Regional Consortia should submit a joint letter to FirstNet. Connie Stewart, Jodi Mulligan-Pfile and Cecilia Aguiar-Curry agreed to take a lead in drafting and circulating such a document and working with the statewide associations to secure signatures.
- Local Governments should consider aggregating demand among their separate emergency services to help support broadband deployment, especially in rural regions.
- Rural counties throughout California need to join forces in approaching the U.S. Forest Service (USDA) in being a partner and/or customer in broadband deployment, including to better manage wilderness lands and environmental habitats.

### **Spotlight on Winters, Yolo County, and Connected Capital Area Broadband Consortium: Civic Leader Mobilization and Broadband Planning**

#### Cecilia Aguiar-Curry, Mayor, City of Winters

- Broadband has become a city and county priority in Yolo County and it requires more staff awareness. There must be a cultural shift to plan for broadband as essential public infrastructure. Local Officials have advanced the issue by working together on a Broadband Strategic Plan.
- Local Governments should adopt broadband policies into their General Plans to establish a logical and rational framework for project conditions, road and ROW standards, and impact fees.
- The City of Winters is pursuing broadband deployment and adoption with many strategies: working with local providers; attracting new economic development; and implementing School2Home.

#### Don Saylor, Supervisor (Chair of the Board), Yolo County

- Yolo County has been passed through with statewide fiber “freeway” projects (such as CENIC) going elsewhere with no “off ramps” for Yolo. Local leaders (in part through Yolo Leaders) began to sound the alarm and recognized that broadband is an economic development imperative for both urbanized areas and agriculture, and for education, health and quality of life for residents. Only 5% of the total land area in Yolo County is urbanized, which becomes a challenge for extending broadband infrastructure; and 85% of residents in the unincorporated areas are underserved. These kinds of circumstances require collaboration and support from the State and federal governments.
- The goals for broadband infrastructure and bandwidth continue to be a moving target. Since the Yolo Broadband Strategic Plan was completed, the FCC changed the broadband definition to be at least 25 Mbps down and 3 Mbps up—so most of Yolo County and its cities are now defined as underserved. The question is whether the State and/or CPUC will modify their thresholds for deployment projects?
- It is important for Local Leaders to understand the power of making something happen—pick a place and make it hum. Local Government Officials would benefit from sample policies for General Plan Elements, ordinances, and permit templates for construction projects.

#### Christine Crawford, Executive Officer, Yolo LAFCO

- The Broadband Strategic Plan goals are: educate the community on broadband; identify broadband gaps; delineate key short, mid and long-term initiatives; unify technology policy; propose key strategic broadband investments; and positively facilitate improvements in infrastructure and services.
- The lack of adequate broadband infrastructure is not just a rural issue based on the findings from 1,000+ speed test surveys: there is disparity in service among and within cities; half of the residential areas shown as served on the CPUC maps really are underserved; employers do not have adequate service, especially small-to-medium-sized businesses; and the agriculture industry reports that access to broadband is their “#1” need.
- The next steps in the Broadband Strategic Plan process are: join Next Century Cities coalition; market Yolo broadband demand to providers in Winters and Knights Landing; analyze prospective aggregated demand and build capacity in local agencies to increase market demand; and explore feasibility of community networks, public funding and financing, and grants.

#### Jodi Mulligan-Pfile, Project Lead, Valley Vision, Connected Capital Area Broadband Consortium

- Valley Vision as the fiscal agent for the Connected Capital Area Broadband Consortium has focused on public awareness in the region, distribution of newsletters, and sharing of resources, such as examples of model policies and guidelines to support Local Government Officials.
- The focus on broadband by Yolo Leaders and the Broadband Strategic Plan process are examples of positive impacts from Regional Consortia. The Connected Capital Area Broadband Consortium was involved in helping organize the first forum for Yolo Leaders and is very pleased with the progress.
- The process followed by Yolo LAFCO to develop the Broadband Strategic Plan (including a RFP for a consultant, stakeholder outreach and engagement, and extensive surveying and speed testing) also was a good way to mobilize city and county leaders and staff.

#### Comments and Themes from Roundtable Discussion:

- The most expensive part of broadband infrastructure deployment is underground trenching for the conduit. Local Governments, the State (particularly Caltrans), public utility agencies, and private utility companies need to coordinate efforts in seeking ROW easements and doing trenching.
- The California Broadband Council (CBC) could help Local Governments and Regional Consortia greatly by facilitating the cooperation of Caltrans, California Transportation Commission (CTC), Department of General Services, and other State Agencies to be partners in broadband deployment projects. There is a need to revisit the broadband policies developed by Caltrans and accepted by CTC in July 2006. Supervisors Dennis Garton and Judy Morris volunteered to attend the CBC meeting on April 22.
- Success stories to build awareness and consensus among Legislators and the State Administration.

## **Innovative Strategies for Getting Connected (with Speed for the Future)**

### **Jim Morrison, CEO, Lit San Leandro**

- Lit San Leandro is a public-private partnership with the City of San Leandro to install a fiber loop in the central business district using a \$21M EDA grant for the broadband deployment using the existing municipal conduit. San Leandro Dark Fiber owns the fiber optic cable that runs through the City's underground conduit and Lit San Leandro owns and operates the switch and routing facilities. Lit San Leandro has helped build network cohesiveness among the City, schools, businesses, and neighboring cities of Hayward and San Lorenzo. A cooperative project is much more appealing.
- It was essential at the beginning of the project to map existing infrastructure and deficient areas and then continue to refine as more information was obtained. The lesson learned is to generate an initial map and then update it going forward, but neither fail to gather what information is available or wait to have all the data until getting started. Keep the initial broadband loop to a manageable size, because it is really important to get a part of the network in the ground that is "small enough to be a win" and "big enough to matter." It can always expand in later phases of the project. A "dig once" policy is helpful because installing conduit is inexpensive. Work with economic development staff in the jurisdiction and real estate developers to identify areas in need of broadband infrastructure.
- Lit San Leandro has connected many buildings, making them more attractive for business to locate and expand, going from 40% vacancy to 5%, enabling landlords to invest in improvements. Health care and technology companies are locating in San Leandro due to the fiber loop. A number of projects are in progress: expanding the network into adjacent cities, such as Berkeley; enabling public WiFi hot spots; and partnering with education, airports, shipping ports, and transportation entities.

### **Steve Blum, President, Tellus Venture Associates**

- The CPUC has good broadband data, although it can be overwhelming and needs more delving to be optimally useful. For example, the Central Coast Broadband Consortia (CCBC) has analyzed the data for its 3 counties and determined that 4MB speeds are fundable and 10MB speeds are not. In doing the analysis, data about mobile service and coverage leased from Megapath were removed and then overlaid with the population base for the region. What results from this process is essentially wireline coverage and areas that are fundable and with the highest population densities; it is an indication of the broadband needs and gaps. Similar maps are available for each county through the partnership between CETF and the California Center for Rural Policy at Humboldt State University.
- Provider claims about service data—particularly regarding wireless service—can be disputed with the CPUC's various groundtruthing tools and customer surveys.
- Additionally, a broadband report card can be generated for each jurisdiction which allows communities to set priorities and policies to develop broadband strategies and plans and to support deployment projects. Cities and counties have little or no regulatory power or leverage over telecommunications or cable companies, but can file complaints at the federal level with the FCC and at the state level with the CPUC. Jurisdictions should inventory their public assets, such as conduit and real estate, which can be leveraged in broadband projects. Other resources jurisdictions can leverage include: IT budgets; management of street cuts (ROW, open trenches, shadow conduit and GIS logging); municipal enterprises; and public-private partnerships.

### **John Paul, CEO, Spiral Internet**

- Spiral Internet began its broadband efforts in 2006 with the acquisition of the customers of the Nevada County Community Network. The vision of the company tied well into the Google announcement searching for the first gigabit city. Nevada County submitted an application in 2010, knowing that a larger city would be chosen. Spiral Internet currently has a CASF application under consideration for a 26 square mile fiber-to-the-home (FTTH) project in western Nevada County. The CASF project grant application was submitted in February 2013, with anticipation for approval later in 2015. Spiral found demonstrated demand, especially for those who only have access to DSL, satellite or dial-up service.

- Underground fiber construction was chosen because it is less vulnerable, would require less maintenance and be sustainable into the future. Spiral Internet has identified areas beyond the reach of cable Internet access that need much faster Internet access. Today, there are monopolies of ultra high-speed networks by the cable companies with little incentive to build out. More competition would help address the situation. The CASF project is feasible because of a mix of subsidies and private funds. It is possible for fiber and wireless providers to coexist in our rural areas.
- A community has to be educated about the relevance of high-speed broadband, about upcoming applications, and how to build for the future. Outreach and education are key to demonstrate how all sectors rely on broadband connectivity. Be tenacious and audacious, so your community won't or can't be left behind.

### **The Role of Broadband Regional Consortia**

#### Devla Singh, California Public Utilities Commission, California Advanced Services Fund, Regional Consortia

- Currently the CPUC has approximately \$240,000 remaining in the CASF consortia account. CASF funds are used to promote ubiquitous broadband deployment and promote access and adoption across all California regions.
- The role of the Regional Consortia is to assist the CPUC in achieving the 98% deployment goal by facilitating agreement among stakeholders in the region and encouraging applications to CASF. Consortia have worked with Internet Service Providers to promote access and adoption. In addition, the consortia have increased awareness among policymakers about the importance of broadband access for economic development and regional well-being. Assembly Member Jim Wood has authored AB1262 to continue funding for Regional Consortia, which will transfer \$5M in funding from the CASF Revolving Loan Account to the Regional Consortia Account—no new fees or taxes, just an internal transfer within existing CASF
- It is very important to engage Local Government Officials in the Regional Consortia. Without participation from local leaders, you cannot get the message out about why it is important to have broadband in the community. And, Local Governments are essential to identifying and dedicating public assets that can be used to encourage broadband deployment.

#### Connie Stewart, Executive Director, California Center for Rural Policy, Redwood Coast Connect

- Local Government Officials need to be involved in the Regional Consortia and the Regional Consortia need to make a concerted effort to reach out, brief, and engage them. The Local Government Roundtable is a good way to ensure that the statewide associations are aware of what progress is being made and the opportunities for leadership.
- It is very important that local stakeholders be consulted and have input at the beginning of broadband projects. Local Governments and Regional Consortia should use the maps that Steve Blum referenced. There also needs to be local oversight of the projects.
- Local Government Officials can have more input and impact on State and federal policy by working together and preparing joint policy statements. It is critical to get AB1262 passed to extend funding for Regional Consortia. California needs to seek federal matching funds because it is exhausting making the case project-by-project.

#### Dennis Garton, Supervisor, Tehama County

- Rural counties have the similar broadband issues as urban communities. Broadband is essential in rural communities to keep young adults from leaving to earn a living or enjoy certain amenities. Tehama County welcomes assistance to design and deploy broadband service throughout the county.
- Counties, particularly rural counties, could use high-speed Internet services to help manage the jail responsibilities. Access to telehealth services could avoid a lot of transportation costs.

- The agricultural industry is vital to California’s economy and access to broadband would be a huge boost. It is useful to participate in the Local Government Roundtable and to learn about approaches and strategies that have worked elsewhere. Tehama County concurs with the CETF policy positions and will be available to provide testimony to the CPUC and CBC.

Mark Lovelace, Supervisor, Humboldt County

- Broadband has been a priority for Humboldt County for several years and all 5 of the Supervisors have worked together to address challenges and accelerate deployment. Humboldt County developed an Element for the new General Plan to establish the foundation policy for this 21<sup>st</sup> Century infrastructure. Although Digital 299 is located in a couple of Supervisors’ Districts, it is important to the future of the County as a whole and also to Trinity County. Thus, Humboldt County is united on Digital 299.
- Humboldt State University is an important asset for the region and has provided critical leadership in working with Local Government Officials. It also is an anchor institute for the region and can help drive deployment.
- Broadband is not a rural issue or urban issue—it is important to both because ultimately it is all about how best to serve the people. Everyone needs to work together statewide to engage the State and federal governments to achieve the broadband deployment and adoption goals.

Comments and Themes from Roundtable Discussion:

- The purpose of the Regional Consortia is to engage policy leaders in advancing broadband in unserved and underserved regions. The Regional Consortia must involve more Local Government Officials.
- Counties can significantly improve the delivery of services to their constituents by working together across jurisdictional boundaries and becoming active in their local Consortium.
- AB1262 will be heard in April and it is important for all participating organizations to provide letters of support to continue CASF funding for Regional Consortia.
- CETF proposed CASF funding for Regional Consortia because the most cost-effective deployment projects in the first round of grants were those in which Regional Consortia had been involved in providing input and helping shape the design.

**Joining with Education for Smart Communities: It’s Not Rocket Science—It Is Harder!**

Michael Gallo, President, San Bernardino City Unified School District, CEO, Kelly Space and Technology, Inc.

- A region’s economic prosperity depends on the quality of its education. In the Inland Empire 53% of the population is on public assistance and not being adequately prepared for future jobs, 70% of which will require some form of post-secondary education or training. If kids are not proficient in reading by 3<sup>rd</sup> grade and in math by 5<sup>th</sup> grade, they never catch up. This situation is not sustainable and if people are allowed to languish, they will ricochet back into the system. When a person is in crisis, he or she will not be successful. Local Government Officials—schools, cities, county—and civic leaders must have a shared vision with a plan of action. While there are thousands of examples of random acts of excellence, there has not been a focused, comprehensive and coordinated effort to move people through the system with accountability for results. The Launch Initiative at San Bernardino City Unified School District (SBCUSD), a pilot for the Inland Empire region, is designed to address these challenges.
- Technology is a very important part of a coherent strategy, but broadband access and computing devices alone do not necessarily result in higher levels of academic achievement. Not having well-defined objectives for a project can have a detrimental impact. SBCUSD surveyed their students to identify which families don’t have computing devices or high-speed Internet access at home and purchased 5,000 chromebooks with wireless 3G connectivity. SBCUSD is developing the plan for professional development and parent training to be implemented during this summer. SBCUSD welcomes CETF input and guidance from the experience with School2Home.



- SBCUSD also is working with the San Bernardino County and the City of San Bernardino to coordinate services to ensure that every student and family receiving the computing device has a long-term plan for success with an assigned Life Coach to move people from dependency to self-sufficiency. By 2017 all SBCUSD students will be linked to a career pathway of their choice. Studies show that interventions need to happen early in the child's education career, thus SBCUSD is implementing pathways programs (and introduction to industry-related skills) at the middle and elementary school levels.

#### Comments and Themes from Roundtable Discussions

- Mike Gallo needs to be commended for his vision and leadership to make such a big difference in the Inland Empire as an employer, civic leader, and elected School Board Member.
- Teacher professional development and parent engagement are essential for the successful use of technology in teaching and learning to improve education outcomes.
- Follow-up discussions are needed to connect all of the initiatives to create a Smart Region, such as the Governor's Pathway Grant. Organizations participating in these efforts need to communicate with the large employers in the region in order to ensure their needs are being met as a result of this work.
- Hack-a-thons and coding projects can be helpful in engaging the interests of students. They are most effective when connected to efforts to improve education as well.

#### **Shared Perspectives and Wrap Up: Challenges and Opportunities for the Future**

##### Michael Kasperzak, Councilmember, Mountain View, Former President, League of California Cities

- The Local Government Roundtable again this year provided a lot of useful and interesting information. It is clear that a lot has been happening since the first time the Roundtable met in 2013.
- Urban areas are in need of improved high-speed Internet access to provide better public services and it is not clear that market forces alone will take care of it. Even cities in the middle of technology innovation can do so much more with broadband applications.
- City Officials need to work with the League of California Cities to elevate broadband deployment and adoption as a State priority and provide the essential leadership to close the Digital Divide.

##### Dave Finigan, Supervisor, Del Norte County, Former President, California State Association of Counties, Former President, Rural County Representatives of California

- Local Government Officials need to work together more purposefully and strategically in collaboration with the Regional Consortia to get what we need for our local jurisdictions.
- It is helpful to share best practices such as the experiences and lessons learned on Digital 395 to apply to Digital 299. Local Governments also need to work on adopting policies, ordinances, and streamlined permitting practices. County and city administrators and public works departments must see broadband as a "must" in their responsibilities.
- While we need State and federal action and assistance to close the Digital Divide, it is a matter of priorities and political will. Other states, such as New York, are making broadband a higher priority and investing state funds. Local Government Officials need to take a look in the mirror in renew our own efforts. The Roundtable provides a worthwhile forum for Local Government Officials to join forces.

##### Sunne Wright McPeak, President and CEO, California Emerging Technology Fund

- CETF is grateful to CSAC, LCC and RCRC for co-sponsoring the Local Government Roundtable. CETF will follow up with all of the statewide associations to conduct workshops at their annual conferences.
- CETF commends the Local Government Officials for their dedication of time and leadership to close the Digital Divide. By working together it is entirely possible to close the Digital Divide in California—and we must for the future of our communities and our beloved Golden State.
- CETF will prepare and distribute a Summary Report of the Local Government Roundtable.



## 2015 Local Government Roundtable

### Summary Report

Responses from Roundtable Participants:

What was your major milestone in promoting Digital Inclusion in the last year?

✓ Continued efforts to include broadband policies in the General Plan.

✓ Facilitated and turned on redundancy between Oregon and Del Norte County to provide huge capacity and lightning speed.

✓ Led the City through a grant process to purchase a mobile trailer that brings City Hall into neighborhoods with WiFi hotspot capability for residents.

✓ Transitioned from Google's free city-wide WiFi to a more limited, but more robust, free public WiFi at city-community locations (sponsored by Google).

✓ Issued a Request for Proposals for the 21<sup>st</sup> Century Obsidian Project: a design-build initiative to construct a publicly-owned, 1-10GB fiber-to-the-curb network to serve over 92% of Inyo County's residents. Inyo County is 10,000 square miles with 18,000 people; over 90% live in the western part.

✓ Helped to educate and disseminate information to rural communities on the importance of broadband.  
✓ Worked on various regulations, policy measures, and legislative bills to help close the Digital Divide.

✓ Brought fiber optic communication services (25Mbps or faster) to over 11,000 homes, including 3 low-income housing properties.

✓ Made it easier and more cost-effective for small, local Internet providers to gain access and install their equipment on existing CB radio towers and ham radio towers through lower or no cost permits.

✓ Installed IMQ2 software for County Board meetings, digitally preparing agendas and phone live on Internet voice.

✓ Joined the Inland Empire Broadband Consortium.

✓ Helped facilitate coordination between Praxis and the local community to give Digital 299 the best chance at success.

✓ Created Jobs Development Coordinator with an initial task of determining need for expanding broadband to increase employment opportunities.

✓ Continued to speak on and provide information on the reality of our digital landscape to see a breakthrough of awareness by many elected leaders in San Bernardino County.

✓ Made the case for including farm fields for digital access to support new agriculture technology to deal with drought impact on agriculture.

✓ Supported Broadband Regional Consortiums.

✓ Designed product line that upgrades all schools on Digital 395 to 1GB.

✓ Secured Legislative support and funding to include 1,200 California public libraries on the CENIC broadband network.

✓ Spoke around the state about building a gigabit fiber optic network in rural California.

- ✓ Completed the Yolo County Broadband Strategic Plan.
- ✓ Implemented School2Home with 100% participation by parents of 6<sup>th</sup> graders.

- ✓ Rolled out the first City of Los Angeles Digital Inclusion Program—OurCycle LA.
- ✓ Developed refurbishing of good PCs and donating them to low-income households as part of OurCycle LA.

✓ Led the successful installation of a new tower in desert area near Ridgecrest to provide access to racers, campers and other visitors (although at the last Roundtable in 2013 the telecommunications provider said that it couldn't be done).

- ✓ Focused North Coast efforts on defining Regional Consortia that make sense to address realistic and achievable goals.
- ✓ Worked with an experienced provider to help plan and design a project to connect communities along Highway 299 and develop a strategy to make it happen.

✓ Developed GIS map for ISPs to co-locate on State property.

✓ Continued discussion with University of California, Riverside, Riverside County Region Medical Center, Inland Empire Health Plan, and Riverside County about data exchange that improves regional health.

✓ Supported and promoted completion of Digital 395.

✓ Advocated that public safety spectrum be shared with critical infrastructure providers.

✓ Helped the Inland Empire Regional Broadband Council prepare and adopt a broadband plan.

- ✓ Chaired the “Fiber-Ready Checklist Committee” as a primary tool to assess City of Riverside readiness to attract fiber retail providers.
- ✓ Began preparation of a report on results.

- ✓ Promoted the Inland Empire Regional Broadband Consortium and its plan to the leaders and innovators in Riverside County and San Bernardino County region to elevate the importance of breaking down the Digital Divide.
- ✓ Supported collaboration among groups, organizations, businesses, and government to bring about action beyond theory.

✓ Introduced the vision of CETF, Inland Empire Regional Broadband Consortium, and their partners to San Bernardino County Supervisor Josie Gonzales.

✓ Working with the Inland Empire Regional Broadband Consortium to expand the communication for broadband region-wide.

✓ Gained knowledge about direction through research and investigation.

- ✓ Promoted ground-truthing to determine actual access and speeds.
- ✓ Generated information to improve data about broadband access.

✓ Advanced our city’s IT and broadband capabilities to improve access to city information and personnel resources.

- ✓ Brought low-cost broadband to Eastern Sierra through Digital 395.
- ✓ Began development of Digital 299.

✓ Adopted a specific ordinance to help close the Digital Divide.

✓ Put digital access pilots in six area high schools and facilitated outreach to over 600 families.

✓ Brought awareness to the unsolved problems of the Digital Divide.

✓ Was elected County Supervisor with increased broadband access as a major platform plank.

✓ Came to the Local Government Roundtable to learn more.

✓ Co-sponsored the 2015 Local Government Roundtable.

The following “Word Map” presents an overall picture of the above major themes and prominent issues.

	COMMUNICATION				CPUC
Inland Empire	O	<b>Broadband Plans</b>	CSAC		▲
IERBC & IEEP	N	Ordinances	W	YOLO	●
S		<i>grouNdtruthing</i>	Dig Once	LAFCO Strategic Plan	■
CENIC		<i>survEys</i>	<b>LEADERSHIP</b>	RCRC Winters School2Home	
H		LCC	<b>General Plans</b>	<i>E-redundancy</i>	
O		<i>CollaboraTe</i>	Municipal Towers	Fiber Networks	RFP Obsidian Project
O		Mobile City Hall	<b>Digital 395</b>	<i>Engage and Educate</i>	
Libraries	CTN	<b>Digital 299</b>	OurCycleLA	San Leandro Lit	
Support		LOCAL GOVERNMENT ROUNDTABLE		<i>Sustained leadership</i>	



## 2015 Local Government Roundtable

### Summary Report

Responses from Roundtable Participants:

What do you plan as your major accomplishment for the next year?

- Promote more collaboration to action.
- Keep the momentum going on both the private and public levels to bring affordable broadband to all.

- Work with our local tribe and with our new Jobs Development Coordinator to seek ways, through intergovernmental relationships, to provide Internet/broadband availability to rural/remote areas in the county.

- Fully implement Accellerase (Accela) Software Technology for permit applications, development proposals, development plan and fee online submittals.
- Ensure residents, businesses, and developers will be capable of submitting without ever visiting City Hall.

- Become a greater Champion of broadband!
- Deal with the many issues that sometimes slip from the forefront of issues. Broadband deserves to be in the top #3.

- Work with Humboldt County and other stakeholders to get connectivity to Klamath, Southern Del Norte County, and Northern Humboldt.

- Continue working to ensure passage of legislation to help close the Digital Divide, especially AB1262 (Wood).

- Implement citywide fiber installation.

- Execute contract for 21<sup>st</sup> Century Obsidian Project (a publicly-owned 1-10GB fiber-to-the curb network) and begin implementation; starting with designing networks for every community in the western part of the Inyo County.
- As designs are completed, pursue funding on community-by-community basis.

- Bring fiber to 20,000 more homes, including 4 more low income housing properties.

- Develop job specifications to hire an IT manager for all departments to share information.

- Form a partnership with the City of Beaumont and ISP to plan a citywide high-speed project.

- Work with Digital 299 project sponsor to help introduce anchor institutions and tribes for buy-in for the project.
- Serve as a point person for broadband issues on the Board of Supervisors.

- Build a new library with a tie into CENIC.
- Increase demand and understanding of technology for economically-challenged rural citizens.

- Continue to urge active planning and awareness toward Digital Inclusion and look for providers to offer low-cost options in San Bernardino County.

- Get AB1262 passed.
- Implement School2Home in 3 schools.
- Establish a Technology Center for Sacramento and West Sacramento.
- Facilitate submission of an Infrastructure grant for Yolo County.
- Support Implementation of the Yolo Broadband Strategic Plan.
- Work with City of Winters on FirstNet pilot.
- Create speed-test pilots for farmers.
- Get Sutter and Yuba Counties on board by adopting *Get Connected!* resolutions.



➤ Roll out 1 Gbps service to residents in Ontario.

➤ Connect all 1,200 public libraries to the CalREN CENIC network at 1 Gbps.

➤ Finally build a gigabit fiber optic network in our community.

- Hold an ag hackathon to connect farmers to hackers to create apps for agriculture and reinforce need by agriculture for underlying broadband infrastructure.
- Maximize benefit of FirstNet to leverage California broadband to benefit rural economy.

- Update General Plan, policies and building codes to incorporate broadband (Fall 2016).
- Convene and educate residents about broadband.
- Implement a utility tax for city-wide conduit to accommodate broadband.

➤ Do a broadband Initiative (CityLink LA) in an effort to make our community the next gigabit city with a free component for low-income families.

- Keep broadband access, affordability and education as a policy priority for the association.
- Add broadband and Digital Inclusion to the CCS partnership policy issues.

- Encourage use of Digital 395 fiber for more customers beyond anchor institutions.
- Launch telemedicine to rural and urban communities throughout California.

➤ Work to see that the Digital 299 project moves forward with funding and permit approvals.

- Identify gaps in coverage in the county and convene a group of people passionate about broadband to expand access.
- Work with Central Sierra Connect to develop a plan to educate people and expand access.

- Establish a Broadband and Digital Literacy Office.
- Clarify and document policy and process for State surplus computers for schools and impacted oversight State departments.

- Implement a dark fiber agreement between City of Riverside and County of Riverside.
- Successfully market the region's premier tier 3 data center to public and private customers.

- Implement 21<sup>st</sup> Century Obsidian Project.

- Support Supervisor Gonzales to take policy and other action to help close the Digital Divide.

- Optimize broadband systems' interoperability.

- Encourage deployment of broadband facilities.
- Confirm broadband data accuracy.
- Involve the Coachella Valley in the Inland Empire Regional Broadband Consortium.

- Complete the "Fiber-Ready Checklist" and report results to the Riverside City Council.
- Implement the new SmartRiverside coding program for kids, veterans, girls and seniors.

- Work towards advancing knowledge of the steps necessary to expand broadband communications technology.

- Promote connectivity to North Coast tribes.
- Bring last-mile broadband to Gold County and Eastern Mojave using new networks.

- Implement the knowledge gained from Roundtable to advance viable broadband infrastructure for the communities in the region.

➤ Advance and approve broadband infrastructure projects to close the Digital Divide.

➤ Bring broadband to 2,000+ apartments and housing in San Bernardino County that don't have access.

➤ Begin forming an informal group of Local Elected Officials to focus on gaps in broadband in our cities and counties using information in recently-completed broadband strategy.

➤ Engage our CIO.  
➤ Look into "Next Century Cities" and sound the alarm that Silicon Valley is getting left in the dust regarding broadband infrastructure for all consumers.

➤ Build It!

The following "Word Map" presents an overall picture of the above major themes and prominent issues.

R	CHAMPION FOR BROADBAND	CPUC	CASF
E	LOCAL GOVERNMENT LEADERS	CSAC	E
G	Winters N	Digital 299 BUILD IT!	Schools & Libraries N
I	LOW-INCOME CONSUMERS	Yolo LAFCO	Neighborhoods Inspire
CONSORTIA	E	<b>LEADERSHIP</b>	Vital RCRC
INland Empire	LCC	General Plans	Redwood Coast E Agriculture Hackathon
AB1262	CTN	Ordinances	Dig Once N
L	I	ENGAGE & EMPOWER	Digital 395 High Speed
Fiber-Ready Checklist	N	FirstNet OurCycleLA	Fiber Networks PARTNERSHIPS
UCR	LOCAL GOVERNMENT ROUNDTABLE	Golden State	Tehama County