



**Central Coast Broadband Collaborative (CCBC)
Meeting December 5th, 2008
Summary of Notes
University Center, CSU Monterey Bay**

Introduction

These notes summarize the key discussion points of the second meeting of the Central Coast Broadband Collaborative. The meeting included presentations from three telecommunications and technology leaders who provided an overview of the state of the industry and served as resource experts when the participants broke into workgroups to review progress to date, consider issues, and identify next steps. These leaders are:

- Steve Blum, President, Tellus Venture Associates - Tellus Venture Associates is a business development and market analysis consultancy for the digital media and telecommunications industries. Wireless broadband clients include the cities of Lompoc, Folsom and Oakland. The firm specializes in developing new wireless and fiber optic broadband systems, and satellite broadcasting platforms and services.
- Rick Ellinger, President, Wireless Communications Alliance - The WCA is a non-profit mutual benefit educational organization created with Joint Venture: Silicon Valley Network, and has four special interest groups, including one focused on metro networking.
- Harold Gallicer, Principal, SeaKay - SeaKay provides financial and technology solutions to improve efficiency and compliance in the non-Profit sector. SeaKay is the founder of the Metro Connect Collaborative, which brings together leaders in the technology industry to provision large scale municipal networks.

The speakers addressed the following important issues:

- The Business Case and Financial Models for Local and Regional Broadband
- Stakeholders and Governance – What Works and What Doesn't – what are the issues and challenges, how to build in flexibility, what resources are needed.
- The FCC and Rural Broadband – Policy Initiatives on the Horizon, including state and federal

Information was presented on where municipal wireless is today, why free wireless access for everyone is not a good business model, and what the most realistic options are. Regarding governance, one speaker recommended that there be a Network Board of Directors for the three county region, that it must meet at least monthly, have a weekly operations review, and must be kept funded. Operating considerations were discussed. Performance of the products must suit the needs of the consumers, including youth who are early adopters of some types of technology. Present broadband infrastructure choices were delineated. There is a real issue with adoption of services, which don't always justify the costs of infrastructure. Adoption rates need to increase, and new products need to be offered. Partnerships of the public sector and private community organizations are important.

There are a lot of barriers that the telecom companies put up to the public. They are reluctant to share their information for mapping. However, it was felt there will be more regulatory changes leading to more sharing of mapping due to changes in the cable franchise law, evening out the playing field and leading to better provision of services. There is no complete map of existing broadband infrastructure for the region. Existing regulations give advantage to local incumbent providers of telecom services and they are the only ones who know where the infrastructure is.

They have an issue of proprietary information and mapping. Until then it will be hard to find public solutions as there is a blockage in the economy.

There are many other policy opportunities and changes on the horizon, including decisions needing to be made about the California Advanced Services Fund; the investments that will be made through the FCC-funded Rural Telehealth Network (of which there are several potential sites in the Central Coast region); the next steps for the Governor's Broadband Task Force, which has recently been brought under the umbrella of the State CIO; state legislative proposals; and policy initiatives of the new Administration which indicate an elevated commitment to bring broadband to all Americans as a core part of infrastructure for the 21st century, which could possibly be part of the proposed Economic Stimulus package. There is also a recent FCC ruling about white space, which will open spectrum that can deliver broadband services and which may be of benefit for rural areas. Another topic is the Universal Service Fund for phone service, which could be put to better use for broadband.

SeaKay is working with the California Energy Commission on the issue of the smart grid, the next generation of communications with utilities and the ISO. There is an opportunity to take improvements in the power grid and broadband forward together, building relationships with consumers so they can meter energy use. The Rural Electric Administration Program of USDA is another possible resource.

Regarding governance approaches, governance is an eco-system of funders and regulatory agencies. The CCBC should tap into many stakeholders for funding and advocacy, building on existing activities to create the regional broadband network. "Just do it" – Develop the network among the stakeholders. Pool the public sector assets, push out connectivity past the current points, share costs among the education, non-profit and municipalities as a start. FCC's Telehealth Network could be another resource, as well as the network of health clinics in the region. It was also suggested to partner with the incumbent providers to extend and capitalize existing networks, and look at public-private sector partnerships to extend service to the "last mile." Public safety networks and public utilities can help extend the service networks as well. While the regulatory environment is complicated, public sector organizing to build networks to provide services benefits everyone in the region.

A discussion ensued about the ownership of assets and the legal and governing entity. The CCBC Governance Working Group addressed these issues subsequently in its breakout session (see next section for next steps).

The powerpoints from the presentations are available at <http://wetec.csumb.edu/site/x17343.xml>

After the discussion concluded based on the presentations, the CCBC broke into the three Work Groups – Applications, Technology and Governance – to discuss their progress to date, current issues and next steps. The following section presents a summary of the Work Group reports back to the entire group, and the next steps for the work of the CCBC to reach its target of the recommended regional broadband strategy by mid-March, 2009.

Summary of Work Group Report Outs

Note: Information on Work Group activities, the progress to date, and issues and strategies to consider that was the subject of the breakout groups is available on the website (see link above).

Applications Work Group

- There is an overlap with where the broadband infrastructure should be available and what locations are required for the applications needed.
- A model is needed to provide a rubric for evaluating priorities for the following types of needs: education, economic and workforce development, health, homeland security, underserved, to meet future growth, etc.

- The following are the initial areas/projects recommended as priorities for providing broadband hub locations:
 - San Benito County Airport (multiple uses)
 - Ryan Ranch
 - UC MBEST/Marina
 - 2120 Delaware – UCSC
 - Greenfield
 - King City
 - Big Sur
- Next steps for the Work Group are to standardize the project/site evaluation rubric and identify/refine demonstration projects for the Regional Broadband Strategy, covering each county.

Technology Work Group

- We need to develop the Map which shows where the broadband infrastructure currently exists, then overlay the needs (applications) and identify what assets are available to pay for the network. There will be a lot of pieces.
- To create a map of the state of connectivity and gaps, start with the existing networks for which we have that are the most current state of information – the schools.
- Need add: libraries, health systems and public safety networks. We can figure out the gaps in the community-based network.
- Use the information to define the backbone of communication spurs to meet end nodes – they will require different technology solutions.
- Sunesys offers to do an engineering/feasibility study with cost analyses. The question is who sponsors the analysis? There is a rough estimate of \$100-\$200/foot for fiber installation, but exact costs would depend on location and conditions of installation. What are the costs of the trenching, rights of way, costs of fiber, etc.? How should we proceed?
- Some information on networks may not be available to security considerations. The Monterey County Business Council offers to ask cities/counties and security entities for additional network information.
- There are several networks in the region. The next step should be to connect the existing networks. Identify the end points of service and expand off the edges. Agreements can be developed for rights of use, and so forth, to transport access.
- Lack of access to CENIC, especially for business uses, continues to be a barrier, although there are areas where CSUMB has redundant circuits and other users can be added for “reasonable use.”
- The economic development aspects are critical. We can make it happen!
- Next steps for the Work Group – gather additional information from other networks such as the telehealth system and start building the Map, using GIS to add coordinates and geocoding. We are exploring the use of a WIKI map (Wikimapia – an online editable map combining Google Maps with a Wiki system) or other technique where people can add information on where there is or is not availability. We don’t have to get it 100%, but rather, identify the most pressing gaps and match them to the highest priority applications. The site should be password protected to safeguard the data on the nodes. Redshift has offered to provide the CCBC with a website as well.

Governance Work Group

- The Vision is that regional stakeholders will collaborate and share networks. The CCBC will be the central locus trying to provide information resources and partnerships but not operating the networks. It will gather information on models and share them with the partners and organizations (tribal wisdom). The goal is to try to solve problems. The CCBC can add value as an information resource, support for funding, etc. We are expanding the network – “It’s for everyone.”
- The Governance structure will require agreements among partners and stakeholders acting as members. The Group determined that a JPA will not work, but rather, some sort

of consortium. There can be different methods for different entities to participate – and several paths to achieve what is needed. Get forms together for collaborating partners.

- Establish standards – create intersects between major networks, fill the gaps, transport information, support grant applications for projects. It would also be possible to do bonds.
- The start-up will need administrative support.
- There needs to be a clear message about the mission and vision of the CCBC, acting as the standard bearer for the shared good. Identify signatories, case studies, why broadband is important and what the impact will be. Consider a branding strategy.
- We can figure it out!
- Next steps – identify the partners, the board of directors, the membership and the charge; the by-laws; applications; roles and responsibilities.

Next Steps

- Work Groups will meet as needed. The Governance Work Group is meeting in early January to begin framing the governance structure, roles and responsibilities and other aspects.
- The Technology Work Group will collect network information from additional system partners, and start to create the baseline Map of network access.
- The next meeting of the CCBC will be January 15th in Watsonville. All the Work Groups will work together rather than separately to meld information collected and review the Map, the Governance Structure and the recommended pilot applications.
- The following meeting will be held in mid-February to review the final Map, determine application priorities for filling the gaps, estimate costs and resources, agree on the recommended governance structure and integrate the pieces into the draft strategy for review among the participants. CSUMB, UCSC and NPS will take the lead in adding the network information pieces for the Map, identifying the gaps and the overlay of networks, and gather all the resource contacts. This will be the I-Net writ large. The strategy will leverage the collective effort (will quantify) to identify what the CCBC will contribute to build out the network and what is needed to close the gap. It will emphasize the economic development aspect – unique shared infrastructure.
- At the February meeting we will develop a strategy to mobilize champions in support of the strategy.

In summary, the Map will allow us to see the points of nearest interconnection. We will develop the solutions for the final pieces of connectivity. We can expand the sphere of influence with different partners for different projects. The CCBC will act as a clearinghouse.