Broadband in the KRV

Contributed by Richard Rowe
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EASTERN SIERRA CONNECT BROADBAND REGIONAL CONSORTIUMhttp://escrbconsortium.org https://www.facebook.com/pages/Eastern-Sierra-Connect-Regional-Broadband-Consortium/108855312599053Quarterly Newsletter

UPDATE on local Broadband Access   KV Sun 6-6-2012: http://goo.gl/zwbV4 ALL VALLEY SATELLITES OFFERS LATEST IN TECHNOLOGY “It’s faster than anything the Valley has had to this date,” Wilson said. “I believe it’ll be a long time before we see anything faster,” she said excited about the product. According to Wilson, customers who have come in to see a demonstration of the speed and accuracy of Excede have equally as excited about it. The system offers a 12 mbps (megabytes per second) download with up to 3mbps upload capacity. The plans available vary according to the customers’ needs. To find out more about Exede and the other services at All Valley Satellites, call (760) 379-3474 and ask for Diane. MORE: http://www.exede.com/ KERN VALLEY WIRELESS

Kern Valley Wireless Inc. is a Wireless High Speed Internet provider serving the Kern River Valley. Our service provides very fast, high capacity low latency Internet. What that means is with our service you can stream movies, play online games, browse at lightning fast speeds, send and receive large files...the list goes on. We are NOT satellite, we connect to the fiber pipe in Bakersfield, We ARE local...No contracts and no monthly monitoring of how much you use...we took everything you hate about the other companies and just plain didn't do it.

From the Wednesday, May 2 KRVR Monthly Community Meeting   REPORT http://goo.gl/h5Qsq 4-26-2012 Regional Broadband Workshop held by the Eastern Sierra Regional Broadband Consortium in Palmdale Thursday, April 26 –
The second Regional Broadband Workshop, hosted by the Eastern Sierra Connect Regional Broadband Consortium, took place in Palmdale April 26. Attendees from Mammoth Lakes to San Francisco to Los Angeles represented various concerns in the effort to bring the digital age to the Eastern Sierra region. Agencies represented included the California Public Utilities Commission, Inyo, Mono and Kern counties, Kern River Valley Revitalization, United States Department of Agriculture, and various utilities, tribal organizations and Internet service providers.

A previous workshop had been hosted last August in Mammoth Lakes. Highlights of the April 26 conference include:

Robert Osborn of the CPUC demonstrated a new interactive map the PUC has come out with, showing broadband coverage in tiers, or different levels, by color. Of particular note are three tiers, identified as “served”, “unserved”, and “underserved” parts of California. Any broadband service that is measured at 6 mbps or less is considered to be unserved or underserved.

Mr. Osborn demonstrated how the map works. By way of example, he typed in an Onyx address, and the map revealed Onyx to be an “unserved” area. (The map cannot be accessed via dial-up modems and is not active once downloaded or saved to a computer hard drive.)

The URL for this map, which should be active by the first week in May:

Larry Ortega, representing One Million NIU (New Internet Users), spoke on the need for expanded broadband capabilities. He cited as example a video of a cyber bully incident that took place in Whittier and which had been recorded on a cell phone and posted on the Internet. As a result, it was turned over to the school’s principal and the bully was able to be apprehended.

Christine Nutting, Project Director for the San Joaquin Valley Regional Broadband Consortium, spoke on the specific need for Telehealth and Telemedicine technologies in the digital age. At present, the San Joaquin Valley will receive $150,000 per year for the next three years to provide broadband capabilities to unserved and underserved SJV communities. (Eastern Kern County is not part of this campaign.)

Mediacom: Richard Rowe distributed copies of an email from Mediacom’s Tomas Larsen indicating Caltrans wants Mediacom to provide a “detailed constraints map” for the fiber cable needed to complete broadband connections along SLR 178 between Onyx and Inyokern. Mediacom’s position is that until they can produce such a map, which would cost Mediacom over $200K, there’s nothing they can do.

Digital 395: In contrast to Mediacom's meager efforts, engineering from Barstow to Reno is now complete. Equipment bids are completed, vendors secured and contracts awarded. Construction in Nevada is scheduled to begin mid-May of 2012. California will follow, as final needed permitting is acquired. Staff is working to speed up the few remaining issues

with the USFS, CDFG and NTIA so construction can commence.

Inland Empire: Communities in San Bernardino and Riverside Counties have formed the Inland Empire Regional Broadband Consortium, effective, April, 2012.

This was the second such progressive workshop in the past twelve months. It was well-attended and well hosted, including breakfast followed by a wonderful hot lunch.

Jason Houston kernlaw@krvmediation.com   Kern Valley Wireless http://goo.gl/JYwUA Local businessmen Tony Bohn & Mark Jordan presented Kern Valley Wireless’ broadband capability and its timetable for providing service in the Kern River Valley. The microwave link into Bakersfield is up and running, routers switches and access points are in place and transmitting, billing server up and we are ready to take orders. Currently we have deployed service to customers in Weldon, Southlake, Mt.Mesa, Lake Isabella, Wofford Heights and Kernville. Our main Bakersfield router is seeing about 17Mbps at peak usage out of 50Mbps we currently have provisioned in our system. We are working on adding a Canopy system (access Point) in the Kernville area to reach customers that can't see our Rocky Point unit. This we hope will be done toward the end of April. More information: www.kvwireless.com (760) 376-2246 MORE INFO: http://goo.gl/JYwUA
 Digital 395 Middle Mile projectMuch of the region between Carson City, Nev. and Barstow, Calif. has limited, insufficient broadband middle-mile capabilities. The telecommunications system is dependent on decades-old telephone infrastructure, leaving wide swaths of the Eastern Sierra region of California and Nevada underserved.

 The Digital 395 Middle Mile project is building a new 583-mile fiber network that will mainly follow the U.S. Highway 395, a major transportation corridor between Southern and Northern California, which passes through Nevada.

 The project’s service area encompasses 36 communities, six Indian reservations, two military bases, 26,000 households and 2,500 businesses. In addition, 35 public safety entities, 47 K-12 schools, 13 libraries, two community colleges, two universities, 15 healthcare facilities and 104 government offices will also be served, as well as the Sierra Nevada Aquatic Research Lab, the White Mountain Research Station and the California Institute of Technology Owens Valley Radio Observatory.

 Unused, high-capacity fiber will be available to the region’s last mile providers to expand or enhance service to households and businesses, as well as to government agencies or carriers seeking local or long haul transport.
 - DIGITAL 395 MAPS
 - DIGITAL 395 SCHEDULE & STATUS
 Entrepreneurs across rural America know how essential access to high speed Internet is to business success. Washington policymakers have taken a step toward addressing broadband access through the Connect America Fund. To learn more, go to http://goo.gl/ZQJhL   Mediacom Update on the Project to connect the KRV to Inyokern:

On 4/24/2012 2:19 PM, Mediacom VP Thomas Larsen wrote:We actually had a call with the project team yesterday, so I am up to speed on where things stand. The basic issue is that Mediacom and BLM think the fiber should run in the “disturbed” area adjacent to the roadway (approximately 3’ to 10’ from edge of the pavement). There is no natural habitat in this area (boulders, trees, etc.) and the ground is level. Caltrans wants us to locate 5’ inside the right of way. This would mean our fiber would need to be placed anywhere from 30’ to 200’ off of the center of the roadway along the fiber route.   It would make construction significantly more difficult from a practical perspective (boulders, trees, uneven ground) and a biological perspective (disturbing to natural habitat). Because our application showed the fiber route going 3’ to 10’ off the roadway, Caltrans has rejected it. Caltrans has indicated they will reconsider our fiber route proposal if Mediacom completes a “detailed constraints map” that shows precisely where the fiber will be installed along the fiber route. This is going to delay our project and add over $200k more to the total project cost. What started out as a $750k project is now going to cost an estimated $1.75M to complete. All that being said, Mediacom is continuing to work on trying to satisfy Caltrans’ request for additional data. Once we complete the detailed constraints map, it will be back in Caltrans’ hands.
Broadband access to the Internet is a hot-button issue for the Kern River Valley – both for businesses and individuals. Broadband is better than dial-up modems because they transmit information dramatically faster and are more responsive. Both the Kern River Valley and Kernville Chambers of Commerce, KRVR and County agencies have been working to improve the valley’s broadband access as has the State of California. As part of Executive Order S-23-06 (November 2006), Governor Arnold Schwarzenegger created a 21-member California Broadband Task Force composed of public and private stakeholders with the expertise to advise policymakers on a framework for making California a global leader in the telecommunications revolution. The Task Force started by mapping the state.
Portion of the map of California broadband access, with arrow pointing to the Kern River Valley
    9-10-2009 Resolution T-17221 Approval of Funding for the Kernville Interconnect Project MCC is a subsidiary of Mediacom Communications Corporation (Mediacom). MCC plans to construct 32.3 miles of underground fiber optic cable, a middle-mile backbone connection, along State Highway 178 between its Ridgecrest and Lake Isabella systems. Ridgecrest has sufficient circuit capacity and, via this new middle-mile construction, will allow MCC to deliver high-speed Internet to unserved homes in the Lake Isabella system. In addition, replacing the two existing analog node networks with the new fiber-optic line will end the need for MCC to lease circuits (currently at capacity) from local exchange carriers. This project will be able to deliver service to 9,179 households covering an area of about 44 square miles in 16

CBGs at average speeds starting at 3 Mbps download and 256 Kbps upload to as much as 20 Mbps/2 Mbps, depending on a customer’s choice of rate plan. MCC commits to a one-year introductory offer of its Mediacom Online stand alone product at 8 Mbps/768 Kbps for $29.95. The 40% CASF subsidy for this middle-mile project is $285,992 of the total project cost of $714,979.

California Interactive Broadband Map
 A tool for California citizens to find and investigate broadband services in their area. The Map displays all of the broadband providers offering service within the area around a particular address. The data currently displayed represents the situation as of 6-31-2011. The map will be updated approximately every 6 months.   FCC Consumer Broadband Test
 The purpose of the Consumer Broadband Test is to give consumers additional information about the quality of their broadband connections and to create awareness about the importance of broadband quality in accessing content and services over the internet. Additionally, the FCC may use data collected from the Consumer Broadband Test, along with submitted street address, to analyze broadband quality and availability on a geographic basis across the United States.

The California Broadband Task Force found that:
- 96% of California residences have access to broadband (better than nearly anywhere else in the US).
- 1.4 million mostly rural Californians lack broadband access at any speed.
- Barely more than half of Californians have adopted broadband at home.
- Only half of Californians have access to broadband at speeds greater than 10 Mbps
- (including both upstream and downstream speeds).
- Broadband infrastructure is deployed unevenly throughout the state, from state-of–the-art to nonexistent.
In the Final Report of the California Broadband Task Force (January 2008), the California Broadband Task Force concluded that broadband has become a piece of "critical infrastructure" for the state and that government should get involved in funding its further deployment.   The California Broadband Task Force believes that increasing both access to and use of broadband will build economic capital, strengthen public safety resources, improve living standards, expand educational and healthcare opportunities, and raise the levels of civic engagement and governmental transparency. In addition to growing consumer needs, business, research, government, education, library, healthcare, and community institutions require high-speed connectivity to:
- Share information;
- Promote environmentally friendly technologies such as telecommuting, video conferencing, and high-quality video collaboration;
- Provide distance-learning opportunities;
- Enable remote analysis of medical information; and
- Foster a greater civic discourse.   In its final report, the California Broadband Task Force concluded that broadband has become a piece of "critical infrastructure" for the state and that government should get involved in funding its further deployment. The Sierra Business Council (SBC) is the only business organization serving the entire Sierra Nevada region. SBC is a nonprofit association of 700+ businesses, agencies, and individual members committed to promoting a new perspective on regional wealth while emphasizing collaboration in planning and policy making. SBC's mission is to pioneer innovative approaches to solutions to foster community vitality, environmental quality, economic prosperity, and social fairness in the Sierra Nevada. In its workshops, conferences and studies, SBC sees the importance of Broadband to Sierra communities, such as the Kern River Valley. The SBC document Investing for Prosperity: Building Successful Communities and Economies in the Sierra Nevada points out that in just a few years the Internet has become the knowledge worker’s supreme tool, providing numberless benefits only touched on below. It will inevitably become more essential with time. Although rural areas now approach the national average in Internet use, in broadband connections they are falling further behind. Recent growth in Internet use among rural households has been strong enough to bring their rate of Internet use almost up to the national average (Figure 1 below).
However, in broadband connections, rural households fall short of urban households, and the gap is increasing (Figure 2 above). The digital divide in rural California is striking when compared to nearby metropolitan areas, such as the Bay Area which has the highest penetration of Internet usage in the nation. The Internet virtually eliminates two critical barriers to rural development: distance from major metropolitan centers and low information flow. The Federal Reserve Bank of Kansas City states that telecommunications is crucial for rural areas to attract and retain residents and businesses, and to sustain themselves in an ever changing economic environment. Using the Internet, a Weldon rancher can market cattle directly to buyers; a graphic artist in Wofford Heights can design publications for a customer in another state; and a fly fishing or rafting adventure outfitter in Kernville can attract clients from all around the world.   Economists say that the real benefit of the Internet is that it increases productivity, which translates into lower transaction costs and improved economic efficiency. These benefits are seen not just in “new economy” sectors, but in “old economy” sectors such as manufacturing, sales, education, financial services, government, health care, and transportation. This means that broadband can benefit any community, whether its economy is dependent on tourism or timber, manufacturing or government. But beyond existing sectors, broadband Internet service provides the opportunity to diversify local economies and increase local incomes. Using the Internet, people can improve their skills and qualify for better-paying jobs. Business owners can get ideas for new products and research whether a new business concept is viable. Access to broadband Internet protects jobs in small businesses – over 90 percent of all firms in the Sierra – by helping them compete more effectively in today’s economy.   Cleaner air results as people who once drove to work, to shop, or to take a class can now do all these things online from home. The Internet

also enables a community to move its economic base toward sustainable industry, industry that generates little pollution, industry that trades in knowledge, information and innovation.   All that is why Broadband Internet access is so important to the economic future of the Kern River Valley.Currently, the availability and quality of Broadband in the valley is limited at best and unavailable to many would-be customers. In many areas, people have to rely on old copper wire phone lines that make even slow dial-up even worse as an Internet Connection. Satellite options, like Hughes.net and WildBlue, are expensive and slower than DSL or cable modems.

    Broadband speed test from Wofford Heights, showing the relative speeds.

 Mediacom cable modem being fastest currently available in the KRV.   Verizon Phone company (Verizon Wireless is a separate company) offers DSL phone line connects, but in only a very limited area in Lake Isabella and South Lake. Verizon’s 20th Century Microwave-based system is nearly maxed out, both for Broadband and regular phone connections. Mediacom provides some customers with much faster cable modem connections, but since they are using Verizon T-1 lines to provide that, their service can’t be expanded or improved. Mediacom has a waiting list for new cable modem Internet customers.   KRVR has a Broadband subcommittee, chaired by KRVR Board Members Mike Ludiker and Debbie Hess to facilitate improvement in the valley’s broadband future. Together with representatives of both KRV Chambers of Commerce, their frustrating meeting with representatives of Verizon phone company was reported in the Kern Valley Sun (6-11-08): Verizon gives little hope for more Broadband service in the Valley. But, if Mediacom has its way, that is soon to change. At the August 6th KRVR Community Meeting, Mediacom representatives explained a plan that may soon greatly increase the KRV’s broadband access. Prodded by the coming 2009 shift to digital TV for its cable TV customers and evidently operating with a different corporate attitude and economic bottom line, Mediacom is planning to put in a 31.6 miles underground fiber optic cable from Onyx to Inyokern, connecting its existing fiber optic cable system in the KRV to its existing facilities out of Ridgecrest. BRIEF OVER VIEW OF FIBER OPTIC CABLE ADVANTAGES OVER COPPER Once it has a fiber optic cable to Inyokern in place, Mediacom would no longer need the 28 T-1 lines it leases from Verizon in the KRV, freeing those up for nearly maxed-out Verizon’s own use as explained by Mitchell Grubbs, Mediacom’s Director of Technical Operations for the Mid-Atlantic/West Region here from Dagsboro, Delaware. Anthony Sobieski,Mediacom Technical Operations Supervisor for Ridgecrest/Kernville reported on the particulars of the proposed fiber optic line.   Those in attendance at August 6th KRVR Community Meeting were pleased that the proposed fiber optic line will be underground (not on poles with over-head lines). It will run within California Dept. of Transportation (Caltrans) HWY 178 right-of-way and on Bureau of Land Management (BLM) land. Caltrans has a right-of-way considerably wider than the existing roadway, which won’t be affected. Mediacom representatives Grubbs, Sobieski and Mediacom general manager Maury Lee declined to say just how much the Mediacom fiber optic cable project would cost; only that it would be considerably less than the $8 to 9 million figures Verizon was throwing about at the June meeting in the KRV. Part of that is because the line is shorter, since Mediacom has fiber optic lines around the KRV and out to Onyx as well as close as Inyokern from Ridgecrest – less than what Verizon would be required to put in.   In answer to inquiry by Wofford Heights resident Win Lievsay (an Information Technology expert from Orange County), Mitchell Grubbs said that Mediacom is exploring the State grants available as incentives to improve broadband access. But he reaffirmed that Mediacom is committed to the project with or with independent financial assistance. ‘It just makes good business sense for Mediacom’ he said.   Anthony Sobieski explained that Mediacom had commissioned both Archeological and Biologic studies for the route, as requested by Caltrans. They expect those studies be submitted any day now. Once completed, Mediacom will submit its application(s) to BLM and Caltrans. . The proposed line goes through 2 BLM field offices (Bakersfield & Ridgecrest). Once approved (and there is a queue for the backlog of projects being reviewed), Mediacom’s proposed fiber optic line could be completed in 4 months. According to Mitchell Grubbs, once completed the current waiting list would be fully accommodated and Mediacom will be able to serve every customer that has access to their cable TV lines who wants a cable modem Broadband connection. And the speed and ‘quality of service’ will be greatly improved, so that ‘Voice over Internet Protocol’ (VoIP) phone services (like Vonage) could be used by valley residents as well.   So, 2009 should be a good year for Kern River Valley Broadband access. KRVR voiced enthusiastic support for Mediacom’s fiber optic cable plans and voted to submit letters of support when needed to whatever agency, should Mediacom wish to show the approving agencies that it has broad community support in this project. Watch here for NEWS and if needed, where to write to facilitate review of Mediacom’s application. For information at Mediacom: Anthony Sobieski asobieski@mediacomcc.com (760) 446-5509 x207 New forum started: Broadband in the KRV Because of spammers, we’ve had to make it hard to post things to our Community Forums. To post, you have to ‘register’ as a user, then post a message & wait till the moderator (usually the KRVR.org website administrator) to approve the message. We had to do this when spam attacks went over 700 per day! New postings to the new Broadband in the KRV forum:
 - LA Times 8-17-08: Satellite broadband service is costly option
 - LA Times 8-17-08: Your Money: Broadband Internet - Making the best connection