McKenzie Valley Broadband

Opportunities to Improve Service In Our Rural 50 Mile Community
The Oregon Rural Development Council in partnership with USDA Rural Development's Rural Utilities Service (RUS)

Presentations and Links

Information presented at the workshop is archived online at: http://www.rd.usda.gov/files/OR_OregonBroadbandandWorkshop.pdf
Agenda Day 1

• Welcome & Opening Remarks
  • Tony DeBone, Deschutes County Commissioner
  • Vicki Walker, USDA Rural Development State Director & Executive Committee Member, Oregon Rural Development Council (ORDC) • ORDC History • ORDC Fact Sheet
  • Keith Adams, Assistant Administrator, USDA Rural Development Rural Utilities Service (RUS) • Presentation

• Message from Senator Jeff Merkley

• State Government Broadband Focus & Perspective
  • James Labar, Regional Solutions, Office of the Governor • Chris Tamarin, Telecommunications Strategist, Oregon Business Development Department

• Success Stories: Community Efforts to Bring Broadband to Unserved Areas
  • Michael Smith, Sherman County Commissioner
  • Julie Murray-Jensen, Vice President of External Programs, Klamath Community College

• National Telecommunications & Information Administration (NTIA) Broadband USA Program – Timothy Moyer, Program Manager, Broadband USA, NTIA

• Getting a Rural Broadband Effort Started
  • Ken Kuchno, USDA Rural Development RUS Telecommunications Program Director
  • Marsha Spellman, Principal, Converge Communications
  • Nancy Jesuale, President, NetCity, Inc.
Agenda Day 2

• Funding Opportunities for Infrastructure
  • Mike Solt, Special Public Works Fund (SPWF) & WW Coordinator, Business Oregon
  • David Porter, Regional Representative, U.S. Department of Commerce Economic Development Agency (EDA)
  • Eric Foley, NMTC Compliance Manager, Ecotrust
  • Jill Rees, Community Development Specialist, USDA Rural Development – Oregon
  • Shawn Arner, Deputy Assistant Administrator for Loan Originations, USDA RUS

• RD Apply: USDA's New Online Application – Ryeon Corsi, Program & Management Analyst, USDA RUS

• The Pros and Cons of Different Broadband Technologies – Aylene Mafnas, USDA RUS Engineering Branch Chief

• Connect America Fund Progress – Phil Grate, Regulatory Affairs Director, CenturyLink & Renee Willer, Frontier Communications

• Support and Program Provisions for Native American Tribes

• Leveraging Your Project and Partnerships
  • Ed Fendley, Office of Sustainable Communities, Environmental Protection Agency (EPA)
  • Carrie Pipinich, Project Manager, Mid-Columbia Economic Development District (MCEDD)
  • David Soloos, State of Oregon in the Office of the State CIO, FirstNet POC
  • Joel McCarroll, Traffic Supervisor, ODOT Region 4
  • Sabrina Carson, Willamette Education Service District (ESD)

• Connectivity to Further the Health Care Mission
Definitions

• Unserved Location – Physical inability to connect to high speed internet other than through a dialup service — Does not apply to locations where connection is available but not used

• Under-Served Location – What constitutes high speed varies from program to program but in general, speeds < 10 Mb to 12 Mb are considered under-served

• High Delivery Cost Location – Most of the Valley is considered high delivery cost

• Ultra High Delivery Cost Location – About 90 locations in the Valley are ultra high cost
Technologies

- DSL (through copper wires – a standard telephone line such as CenturyLink)
- Cable (through coaxial cable – a land-based cable network such as Charter)
- Satellite (through satellite dishes – such as through HughesNet and Excede)
- Wireless (through cell towers – such as the EWEB connection from Leaburg dam to Carmen Smith)
- Fiber (through a fiber optic cable, either in the ground or along aerial power lines – such as the EWEB cable from Eugene to Leaburg dam)
Sherman County Experience

• Things to consider when building a Broadband system for your area
  • Understand the difference between “Mission Critical” and “Best Effort” services
  • 911 is Mission Critical. Broadband is Best Effort
  • No ones life is threatened if a Best Effort service goes down
  • Think Small and don’t lose focus of your goal
  • Trying to overbuild is a budget killer, no matter how much a consultant thinks it’s a good idea
  • Don’t be an ISP. Own the road, not the trucking company
  • Many ingredients makes for the best Stone Soup project
Sherman County Continued

- We have a 911 system in our county that has space for Broadband antennas
- Tall structures such as grain towers that have available power connections for equipment
- Little RF interference that allowed us to use mostly lower cost 2.4 or 5ghz equipment that have no license fees
- We only needed one 3.65 FCC license in an area with multiple 2.4ghz signals at a cost of $265.00
- We chose to build a basic structure then allow the users to expand the system by providing $150.00 per household for extra work needed to reach them. That way homes in an unreached canyon area could band these funds together to put in a new access point and receive Broadband.
Sherman County Continued

• We built the system to cover over 900 square miles for around $40,000.00

• We service around 13% of all households in the county and of those, most had no broadband access before our project

• Our 911 system was paying close to $3000.00 a month for Internet transport and now that cost is covered by the ISP purchasing transport from them

• The County receives $6.00 per household served by the ISP as payment for use of the network
Klamath Community College (KCC)

Beaming Classes to:

- Klamath Union High School
- Bonanza High School
- Lost River High School
- Chiloquin High School
- Lakeview High School
- Lakeview Dist. Hospital
- ILC - Lakeview
- Paisley High School
- North Lake High School
- Gilchrist High School
KCC Continued

Innovation Learning Center - KCC Lakeview

- Fall 2013, KCC-Lake County students (synchronous, in-person, online) earned a total of 310 credits.

- Fall 2014, students earned 472 credits.

- Fall 2015 students earned 503 credits.

- Winter 2016 credit count came in at 613 credits.

KCC increased dual credit students from 544 to 840 (a 54% increase in one year!)

Lakeview:

<table>
<thead>
<tr>
<th>2015</th>
<th>2 Classrooms w/LifeSize TV’s</th>
<th>26 Synchronous classes</th>
<th>2 In-person instructors</th>
<th>53 Students</th>
<th>430 Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

60% synchronous, 18% in-person, 22% distance education.
KCC Continued

The Future of KCC Synchronous classrooms at KCC -

• Partnering with SOU’s BS Education. Students can complete their BS here at KCC through synchronous. They never have to leave the county!

• Partnering with Rural Fire Agencies to beam synchronous classes to train fire fighters. More certified fire fighters mean a safer community!
Funding Opportunities

• **E-Rate (Schools & Libraries Universal Service Support Program)** – The FCC provides money to help schools and libraries cover the costs of getting internet access to facilities (the external infrastructure, like a fiber cable) and costs of delivering internet access within the facilities (the internal services, like maintaining equipment that connects computers to the internet). In rural areas with high poverty, E-Rate can cover up to 90% of costs. The program is delivered through the [Oregon Department of Education](https://www.ode.state.or.us/).
Funding Opportunities

- **USDA Rural Development Rural Utilities Service Loans**
  - Note: Unserved is defined as areas lacking access to Broadband Service of 4 meg down/ 1 meg up.

<table>
<thead>
<tr>
<th>Telecommunications Loan Programs</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Infrastructure Program</strong></td>
</tr>
<tr>
<td>• $690 million available in FY 2016</td>
</tr>
<tr>
<td>• Loans finance new and improved telecommunications infrastructure in rural communities of 5,000 or less</td>
</tr>
<tr>
<td><strong>Farm Bill Broadband Program</strong></td>
</tr>
<tr>
<td>• $20 million available in FY 2016</td>
</tr>
<tr>
<td>• Loans finance the costs of constructing a broadband network serving rural communities of 20,000 or less (not located in urbanized area contiguous/adjacent to a community over 50,000)</td>
</tr>
<tr>
<td>• Eligible service areas contain at least 15% unserved areas with no part of the service area overlapping with 3 or more incumbent service providers or a current RUS borrower or grantee (there are certain exceptions)</td>
</tr>
</tbody>
</table>
Funding Opportunities

- **USDA Rural Development Rural Utilities Service Grants**

Telecommunications Grant Programs

<table>
<thead>
<tr>
<th>Community Connect Program</th>
<th>Distance Learning and Telemedicine Program</th>
</tr>
</thead>
<tbody>
<tr>
<td>• $10.3 million available in FY 2016</td>
<td>• $19 million available in FY 2016</td>
</tr>
<tr>
<td>• Grants cover the costs to construct broadband networks in rural communities of 20,000 or less (not located in urbanized area contiguous/adjacent to a community over 50,000)</td>
<td>• Grants fund equipment needed to provide Distance Learning and Telemedicine services</td>
</tr>
<tr>
<td>• Service Area must be entirely unserved</td>
<td>• 15% Matching Requirement</td>
</tr>
<tr>
<td>• Broadband Service is defined as 3 Mbps (download plus upload)</td>
<td></td>
</tr>
<tr>
<td>• 15% Matching Requirement</td>
<td></td>
</tr>
</tbody>
</table>


Funding Opportunities

• **Business Oregon (Infrastructure Finance Authority)** – Business Oregon (via the IFA) offers funding for telecommunications infrastructure projects, but funding tends to be contingent on job creation. This becomes a difficult case to make in rural areas where broadband infrastructure build-out will likely take years to result in job creation.

• Oregon Broadband Advisory Council has developed a [Funding Opportunities List](#)
Oregon Broadband Map

Connect America Fund

• More information to come on this from CenturyLink
• Connect America Eligibility Map
NTIA Conference

- Check the link below for info on how to connect to the webcast of the National Telecommunications & Information Administration’s Digital Northwest Broadband Conference this coming **Monday, March 21**. What I learned from the organizers is that the full group sessions will be on the webcast but the breakout sessions, unfortunately, will not. Any events in the main conference rooms (essentially the morning and part of the afternoon) will be webcast.

- I plan to be on a couple of the sessions but would be interested in coordinating note taking with anyone who plans to follow the webcast.

- **Main Page (webcast link at bottom):** [https://www.ntia.doc.gov/other-publication/2016/nwsummit](https://www.ntia.doc.gov/other-publication/2016/nwsummit)


- DOBRINICH Stephen <Stephen.DOBRINICH@co.lane.or.us>