

Oregon Broadband Advisory Council Meeting

June 25, 2020

Virtual Meeting

Attendance

Members Present: Kurtis Danka, Miles Ellenby, Michael Heffner, Wade Holmes, Lonny Macy, Galen McGill, Rick Petersen, Jeremy Pietzold, Cheri Rhinhart, Dave Sabala, and Commissioner Mark Thompson.

Staff Present: Christopher Tamarin of Business Oregon

Guests:

Ruth Adkins, Kaiser Permanente; Ryan Bailey and Cathy Britain, Telehealth Alliance of Oregon; Steve Corbató, Link Oregon; Rick Crager and Carla Wade, Oregon Department of Education; Lori Gleichman, Bean Foundation; Stephen Hayes, Oregon PUC; Jenna Jones, League of Oregon Cities; Caprielle Lewis, EDCO; Danielle Gonzalez, Marion County; Carolyn Meese, Business Oregon; Stacy Michaelson, Multnomah ESD; Keith Mobley, Q-Life; Jake Oken-Berg, Senator Merkley's Office; Carrie Pipinich, Mid-Columbia Economic Development District; Brandy Sweet, University of Oregon; Stuart Taubman, Zayo; Barry Walton, Corning; Paul Zollner, Business Oregon.

The meeting was called to order at 9:17 am.

Welcome, Introductions

Vice-Chair Jeremy Pietzold called the meeting to order and asked for guest introductions.

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Dave Sabala moved that the May 28, 2020 minutes be approved as distributed. Rick Petersen seconded the motion. The council approved the motion.

National Broadband Activity Updates

Chris Tamarin reported on the following national broadband activity regarding infrastructure deployment, technology, market trends, public policy, and illustrations of the value of broadband adoption and utilization since the council's last meeting.

Federal Communications Commission

The FCC announced the third meeting of the Task Force for reviewing the connectivity and technology needs of precision agriculture in the United States on July 22, 2020 (DA No. 20-627) (Dkt No 19-329). The meeting will be virtual and is open to the public on the Internet via live feed from the FCC's web page at www.fcc.gov/live.

National Infrastructure Bill

House Democrats unveiled a \$1.5 trillion infrastructure plan on June 18th, the *Moving Forward Act*, calls funding to repair roads and bridges while expanding broadband access in rural areas. The bill

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includes \$100 billion for broadband. A vote on the legislation in the House is expected before the Fourth of July recess.

<https://thehill.com/homenews/house/503427-democrats-unveil-15-trillion-infrastructure-plan>

5G

The 5G rollout seems to be happening more quickly than earlier predicted with forecasts being in 2021 and 2022.

- AT&T has launched its 5G network in 137 additional U.S. markets, bringing the company's total number of 5G markets to 327 covering more than 160 million people. The new 5G markets are spread in 34 states including Oregon markets of Clatsop County, Lincoln County, Medford, Portland, Salem, and The Dalles
- Verizon is deploying 5G nationwide this year, now that the company has completed successful trials using dynamic spectrum sharing (DSS) technology to enable LTE and 5G services to run simultaneously over low-frequency, or low-band, spectrum. Customers with 5G-enabled devices will use millimeter wave spectrum – an offering Verizon calls 5G Ultra Wideband – where available and will use low-band 5G where Ultra Wideband isn't available. In addition, Verizon's 5G Home wireless service will become part of a future where consumers purchase home internet the same way they do wireless lines. The carrier is using pandemic-based lockdowns to accelerate the 5G Home rollout to compete with wireline service. Instead of a 3 or 4 line wireless plan, consumers will buy a 4 or 5 line plan, with one line being their home broadband.
<https://www.telecompetitor.com/verizon-as-lines-between-wireline-and-wireless-blur-home-broadband-is-just-another-device/>
- T-Mobile is positioning itself as the country's first, and currently one and only nationwide 5G network. As we learned last month, T-Mobile will also be offering a HOME Broadband services including fixed wireless broadband services and content services.

Telework

Comcast Business has joined the ranks of service providers helping work from home (WFH) employees remain productive during – and no doubt after – the COVID-19 pandemic with a service promising the same level of security and services that is available in a traditional office setting. The company calls Comcast Business at Home “a dedicated, enterprise-grade and business-paid” approach. The company says that the service provides reliability, flexibility, convenience, mobility and security. AT&T Business made a similar move. The company said that its Home Office Connectivity uses wired and wireline infrastructure within the AT&T footprint to provision home offices with AT&T High Speed Internet for Enterprise and services such as AT&T Internet Backup connectivity.

Homework Gap

The COVID-19 pandemic has widened the Homework Gap into a Full-Fledged “Learning Gap.” Many students do not have broadband access needed to use Distance Learning curricula. This long standing issue became critical when schools were shut-down in addition to the need for devices such as tablets, Chrome books and laptops, and the capacity of school districts to deliver a 100% distance learning education.

<https://www.edsurge.com/news/2020-06-16-covid-19-has-widened-the-homework-gap-into-a-full-fledged-learning-gap>

Low Earth Orbit Satellite Broadband

The Federal Communications Commission said it has "serious doubts" that SpaceX and other low-Earth orbit (LEO) satellite providers will be able to deliver latencies of less than 100 ms. The FCC acknowledges that LEO satellites have "intrinsic advantages" over geostationary satellites that operate at much higher altitudes. "Satellites in low-Earth orbit are not subject to the same propagation latency limitations as higher orbiting satellites," the FCC order said. But the order goes on to say the FCC has "serious doubts that any low-Earth orbit networks will be able to meet the short-form application requirements for bidding in the low-latency tier" and that companies like SpaceX thus face a high chance of being rejected when they apply for RDOF funding as low-latency providers. Starlink's website says the SpaceX-operated ISP plans to deploy "service in the Northern US and Canada in 2020, rapidly expanding to near global coverage of the populated world by 2021."

<https://arstechnica.com/tech-policy/2020/06/fcc-has-serious-doubts-that-spacex-can-deliver-latencies-under-100ms/>

State Broadband Activity Updates

Chris Tamarin reported the following state broadband activity regarding infrastructure deployment, technology, market trends, public policy, and illustrations of the value of broadband adoption and utilization since the council's last meeting.

COVID-19 Broadband Funding

On Friday, June 5th, the Oregon Joint Emergency Board of the Legislative Assembly approved \$280 million for COVID-19 pandemic recovery programs including \$20 million for broadband. \$8.39 million was designated for Link Oregon, \$1.61 million for school districts and \$10 million for distribution through the Rural Broadband Capacity Program to support broadband projects targeting unserved and underserved areas.

The money comes from the CARES Act Coronavirus Relief Fund provided to the States for the support of infrastructure construction and emergency response projects to provide increased broadband capacity internet access for telework, telehealth and K-12 distance learning applications in unserved and underserved areas in response to the COVID-19 public health emergency.

On Friday, June 19th, Business Oregon issued a Request for Applications for broadband funding from Oregon cities, counties, ports, tribes, cooperatives, non-profit corporations, public-private partnerships, school districts, education service districts, hospitals, health systems and private sector internet service providers for infrastructure construction and emergency response projects to provide increased broadband capacity internet access for telework, telehealth and K-12 distance learning applications in unserved and underserved areas in response to the COVID-19 public health emergency.

A grant may be used for the following:

- Infrastructure - For the construction of broadband infrastructure capable of delivering basic broadband, a minimum of 25 Mbps downstream and 3 Mbps upstream or better.

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- Emergency Response Capacity Projects – For emergency response projects to provide increased broadband capacity internet access for telehealth and K-12 distance learning applications.

The biggest challenge facing applicants for the funding is time. All projects must be completed and grant funds must be expended by December 30, 2020. Unexpended funds will be returned to the U.S. Treasury. Applications are due by 5:00 pm, July 2nd, another difficult timeline.

COVID-19 Telehealth Program

The FCC has surpassed \$100 million in approved COVID-19 Telehealth Program applications.

Awardees include

- *Prism Health, in Portland, Oregon* was awarded \$28,131 for video conferencing software licenses and equipment, laptop computers, and mobile hot spots to offer remote video consultations and nurse triage and visits conducted via telehealth for patients with COVID-19 symptoms.
- *Providence St. Joseph Health Consortium* was awarded \$866,750 for connected COVID-19 kits to include tablets, Bluetooth thermometers, blood pressure monitors, and pulse oximeters, as well as connected stethoscopes to be employed at seven hospitals in Washington and Oregon.
- *Volunteers of America Oregon* in Portland, Oregon was awarded \$740,513 for a telehealth platform, laptop computers, videoconferencing equipment and software, network upgrades, and other software licenses to support health care providers who will be able to provide care from outpatient facilities or their home to diagnose and treat patients for substance use, mental health, and behavioral health issues using telehealth.
- *NARA Indian Health Clinic* in Portland, Oregon, was awarded \$342,346 for smartphones, laptops, tablets, wireless data plans, and videoconferencing equipment and software licenses to maintain patient care by distributing connected devices to elders, families with children in need of care, patients with chronic health and mental health illness histories, and pregnant women so patients c
- *Northwest Human Services* in Salem, Oregon, was awarded \$45,000 for desktop and laptop computers and videoconferencing equipment with which it can continue to provide primary care services to patients using telehealth capabilities and concentrate clinic resources on preparation, response, testing, and education around COVID-19.
- *Oregon Health and Science University* in Portland, Oregon, was awarded \$372,757 for tablet computers, videoconferencing software, and telehealth platform subscriptions to reduce the prospect of COVID-19 exposure for patients and providers by allowing providers, even those in quarantine, to continue to provide patient care virtually, and to maintain remote treatment and diagnosis practices for low-risk COVID-19 patients to prevent them from spreading the virus to other patients and healthcare workers

<https://docs.fcc.gov/public/attachments/DOC-364847A1.pdf>

COVID-19 Special Session Oregon Legislative Assembly

The Governor called a Special Session which began yesterday, June 24th. Senate Bill 1603 - the Rural Telecommunications Investment Act, was introduced. The bill is similar to the broadband funding bills introduced in the 2019 and 2020 regular Legislative Sessions and, if passed into law will create the Oregon Broadband Fund with up to \$5 million per year in funding from the Oregon Universal Service Fund. OBAC submitted a letter of support to the

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legislature for Legislative Concept 39 which then became SB 1603. Yesterday, the bill received a hearing and work session before the [Joint Committee On The First Special Session of 2020](#) and was passed out of committee with a Do-Pass recommendation to the Senate Floor.

CAF II funding

On June 12th, the Federal Communications Commission authorized \$2,708,529.40 in funding for Viasat to serve 3,811 rural locations (unserved rural homes and businesses) in Oregon. Providers must build out to 40% of the assigned homes and businesses in the areas won in a state within three years. Buildout must increase by 20% in each subsequent year, until complete buildout is reached at the end of the sixth year <https://www.fcc.gov/reportsresearch/maps/caf2-auction903-results/>.

National Broadband Availability Map (NBAM)

On June 3rd, NTIA announced the addition of five states to its National Broadband Availability Map (NBAM) program. Wisconsin, Colorado, Illinois, Oregon, and New Hampshire join 13 other states who are partnering on this critical broadband data platform. The NBAM is a geographic information system platform which allows for the visualization and analysis of federal, state, and commercially available data sets. This includes data from the Federal Communications Commission, U.S. Census Bureau, Universal Service Administrative Company, U.S. Department of Agriculture, Oklahoma, Measurement Lab, and the state governments. The mapping platform provides users, including administrators from the 18 participating states, with access to the NBAM and its data to better inform broadband projects and funding decisions in their states.

NTIA received funding from Congress in 2018 to update the national map in coordination with the Federal Communications Commission (FCC). Congress directed NTIA to acquire and utilize data from available third party datasets. NTIA built upon existing partnerships with states and local governments to identify data from state, local and tribal governments, owners and operators of broadband networks, educational institutions, nonprofits, and cooperatives to create the map.

Small Cell

The League of Oregon Cities released new small cell model ordinance and design guidelines. From January 2019 to May 2020, the LOC collaborated with city members and industry including AT&T, T-Mobile and Verizon Wireless to discuss and craft a model ordinance and model design standards relating to small wireless facilities. These newly released models are a product of this work group and represent a lot of work and collaboration. The guidelines are a product this work group effort. The model is intended to be a starting point in an individual city's development of its own policy.

Presentations

Carla Wade

Carla Wade of the Oregon Department of Education (DOE) provided a briefing on the current status of K-12 Schools and the impacts of and responses to the COVID-19 pandemic. Carla reported that

- 27% (1.17million) Oregonians have no access or inadequate access
- 30% of families cannot afford access or are turned away by internet service providers
- 14% of Oregon students do not have access to a computer, laptop, or tablet at home

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- 163 out of 164 districts surveyed in April described the need for professional development related to digital and online instruction.

The DOE hosted a Learning Summit in May to discuss challenges and strategies in the face of the COVID-19 pandemic. Findings included that

- We must re-engineer and reinvent the student learning experience for now and for future success by engaging their strengths and curiosity.
- We need strong momentum, commitment, and unified voices across Oregon to meet urgent family and student needs.
- We must create sustainable opportunities to meet urgent needs and build a stronger Oregon future.

Oregon needs to make investments in

- Online learning tools & professional development for how to use these tools
- Devices to achieve a 1:1 student/device ratio
- High quality, adaptable, culturally responsive, and effective online curriculum
- Family Support

ODE is working with partners to address the challenges.

- Support Business Oregon in distributing the \$20 million E-Board allocation
- Provide guidance on Elementary and Secondary School Emergency Relief Fund (ESSER) Applications
- Partner with Education Service Districts and School Districts to Establish Regional and Statewide Professional Development
- Engage Families in Digital Literacy and Safety
- Support Adoption and Implementation of Learning Management Systems
- Host the Oregon Open Learning Hub

ODE has formed two committees, the Infrastructure and Internet Access Committee, the Digital Literacy, Knowledge and Devices Committee and is working to develop a *System and Sustainable Plan for Digital Learning in Oregon*.

Steve Corbató

Steve provided a Link Oregon (LO) progress report. LO is a non-profit consortium of the four state research universities and state government www.linkoregon.org. LO is deploying a facilities-based optical network made up of individual statewide Ethernet based transport WANs with Enhanced Internet transit (250 Gbps) to serve public and non-profit sectors. LO is not a common carrier. LO has assumed responsibility for previous NERO/OGIG networks. LO will have peering at NWAX (metro Portland), WIX (Eugene), and SIX (Seattle). LO will establish last mile partnerships with commercial and municipal providers

Link Oregon is building a 'fourth wave' advanced middle-mile network for Oregon and has leased 2,700 route-miles of fiber statewide and adjacent states. This type of 'wholesale' network allows scalable capacity and to offer new services more flexibly and cost effectively. Our corporate name is the Oregon Fiber Partnership, and a broad partnership strategy is critical to our success. Core members include the State of Oregon EIS and four research universities. Other partners include P/K-12: ODE, ESDs, major urban school districts, Higher Education Coordinating Commission,

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research universities, community colleges, libraries, health care providers, local governments, tribes, state agencies - Oregon Broadband Office, State Library, and Oregon Department of Transportation, and other community anchor institutions.

Link Oregon is also working to partner with all telecommunications providers that want to invest in their communities' connectivity with the goal of stimulating broadband deployment statewide. Link Oregon is working to envision and develop a roadmap for an Oregon Learning and Telehealth Network. Phase 1 of the network implementation is in the Willamette Valley, Newport and central Oregon this summer. Phase 2 network project is in southern and eastern Oregon and is underway concurrently.

Work Session

Broadband in Oregon 2020 report

The report of the Oregon Broadband Advisory Council (OBAC) to the Legislative Assembly on the affordability and accessibility of broadband technology in all areas of the state, and on broadband technology use in healthcare, energy management, education and government, and on the role of broadband in local, regional and state economies, economic development, public policy issues, and key broadband related challenges and opportunities and facing the state is due on November 1, 2020.

Broadband survey questions for city and county governments was discussed. The survey will be conducted by the League of Oregon Cities and the Association of Oregon Counties.

The working draft of the 2020 report was discussed. Additional sections this year will include business adoption and utilization as directed by HB 2173 (2019), consumer perspectives being prepared by Katie Cox, and transportation including smart transportation systems and the impact of broadband on relieving transportation systems via telework, telehealth and distance education. OBAC will seek the assistance of the Telehealth Alliance of Oregon and OCHIN for the health care section, the PUC for the energy management section, the Oregon Department of Education for the education section, and the Office of the State CIO for the government section.

Public Questions / Comments

Barry Walton of Corning shared that Corning is producing a libraries of broadband resource videos to be posted on a new website [Community Broadband University](#). Here is the planned list of videos.

1. Why broadband
2. What others are doing
3. Funding options
4. Services to offer
5. What is required to operate a broadband business
6. Business models
7. Customer experience
8. Obtaining a High-level cost estimate process
9. Feasibility study
10. Community support
11. Business Case Considerations

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12. FTTH network overview
13. Total cost of ownership "TCO"
14. Electronics overview
15. Working with other utilities
16. Design options
17. Make ready
18. EF&I models for designing & Building a network
19. Resource requirements
20. RFPs
21. Selecting contractors
22. Quality
23. Material selection
24. Managing material
25. Implementation planning
26. Managing the program
27. Connecting customers
28. Customer education
29. Maintaining a network
30. Community and customer communications
31. Marketing approaches
32. Construction methods
33. Splicing Methods

Chris Tamarin noted that preparations are now underway for the annual Oregon Connections Telecommunications Conference. This year we will be in Ashland on October 22 and 23. Our theme for this our *twenty-fifth* year will be *Oregon Connections: 2020 Vision*. The program will look forward and look backward. Topics include a look back at the key achievements and champions that have transformed telecommunications in Oregon, and a look forward at emerging 21st century schools, libraries, health care systems, digital homes and workplaces, smart/precision agriculture, smart transportation systems, and automation all enabled by communication and information technologies. This is a "grass roots" community of interest conference hosted this year by Southern Oregon Regional Economic Development, Inc. You can find more information about conference at www.oregonconnections.info.

Meeting Schedule

The June 25, 2020 meeting of the Oregon Broadband Advisory Council was held as a virtual on-line web-conference. The next meeting of the council will be held on July 23, 2020 as a virtual on-line web-conference. Meeting information will be posted on the [council website](#).

Meeting adjourned at 11:40 am.

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Approved by:

Signature on file
Joseph Franell, Chair
Oregon Broadband Advisory Council

July 23, 2020
Date

Signature on file
Christopher Tamarin
Business Oregon

July 23, 2020
Date