October 23, 2019   Ashland, OR

Attendance
Members Present: Joseph Franell, Wade Holmes, Lonny Macy, Representative Pam Marsh, Rick Petersen, Jeremy Pietzold, Senator Arnie Roblan, and Dave Sabala.

Staff Present: Christopher Tamarin of Business Oregon

Guests:
Pam Berrian and Lori Kievith, City of Eugene; Steve Corbató, Link Oregon; Jeff Crews, Eastern Oregon Network Inc.; Michael Curri, Strategic Networks Group; Kurtis Danka, Office of the State Chief Information Officer; Duke Dexter, Clackamas County; Mike Finch, Lane County; Scott France and Stephen King, MYND Global; Beth Fox, City of Portland; Danielle Gonzalez, Marion County; Steve Hayes, the Oregon Public Utility Commission; John Irwin, J Irwin Consulting; Forest James, Enertribe; Paul Lineback and Barry Walton, Corning Optical Communications; Richard Luebke, Rare Comet; Galen McGill, Oregon Department of Transportation; Brad Olson, Sunriver Owners Association; Cory Paschall, Graybar; Carrie Pipinich, Mid-Columbia Economic Development District; Brandy Sweet and Montana Llewellyn, Oregon Cable Telecommunications Association; Jim Teece, Northwest Telecommunications Association and Ashland HomeNet; Todd Way, Douglas FastNet; Kristi Wilde, the First Responders Network Authority, U.S. Department of Commerce.

The meeting was called to order at 1:15 pm.

Welcome, Introductions, Minutes Approval
Chair Joe Franell called the meeting to order and asked for guest introductions.

Minutes
Dave Sabala moved that the September 26, 2019 minutes be approved as distributed. Jeremy Pietzold seconded the motion. The council approved the motion.

National Broadband Activity Updates
Chris Tamarin provided references 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.

Fiber to the Home Deployment
If spending on fiber-to-the-home (FTTH) deployment were to increase by $70 billion over the next 10 years, FTTH could be available to 90% of U.S. homes by 2029, according to a new FTTH deployment cost report from strategy consulting firm Cartesian and the Fiber Broadband Association, an FTTH advocacy organization. If spending were increased by $52 billion, 80% of U.S.

homes could have FTTH available to them by that date, the report said. "Building all-fiber networks throughout America is not a pipe dream," said Lisa R. Youngers, president and CEO of the Fiber Broadband Association, in a press release about the new report, titled "All-Fiber Deployment Cost Study 2019." The U.S. is already on a pace to see FTTH available to 50% of homes by 2025, said Cartesian and the Fiber Broadband Association.

[Telecompetitor report: FTTH could be available to 90% of US homes](#)

Cybersecurity

- October is National Cybersecurity Awareness Month. Held every October, National Cybersecurity Awareness Month (NCSAM) is a collaborative effort between government and industry to raise awareness about the importance of cybersecurity and to ensure that all Americans have the resources they need to be safer and more secure online. NCSAM 2019 will emphasize personal accountability and stress the importance of taking proactive steps to enhance cybersecurity at home and in the workplace. This year's message – *Own IT. Secure IT. Protect IT.* – will focus on key areas including citizen privacy, consumer devices, and e-commerce security.
- An audit shows that Mississippi state agencies and institutions have left the personal data of many residents unprotected while failing to provide legally required reviews of their cybersecurity policies or instituting written policies on dealing with attacks, according to a state audit. The Mississippi auditor reported that not only were policies ignored, but 54 out of 125 state entities ignored mandated requests to respond to the state's cybersecurity survey [Statescoop: Mississippi audit finds disregard for cybersecurity](#).

Broadband National Funding Programs

- It is reported that any significant new federal broadband programs are unlikely this year, though Congress did authorize $550 million for a second round of USDA ReConnect funding for 2020 following the $600 million for 2019.
- The $100 million Connected Care Pilot program continues to move forward at the FCC with the release of the notice of proposed rulemaking. The proposed pilot would award an unspecified number of projects across the country funding to defray the broadband costs associated with providing "connected care" to low income Americans and veterans. Connected care is generally remote patient monitoring and telehealth services that provide care for chronic health conditions to patients in their homes. Connected care is increasingly being deployed to address diabetes management, opioid dependency, high-risk pregnancies, pediatric heart disease, mental health conditions, and cancer. Initial comments on the NPRM were due August 29, 2019, with replies due September 30. An unofficial compilation of initial comments are available here. [Govinfo: FR 2019-07-30](#)
- The Universal Service Administrative Company (USAC) has not yet published gross funding demand information for 2019 even though this information is knowable in July, after the close of the annual application window. This leads to speculation that demand again exceeds available funding at a time when there are proposals to cap Universal Service Fund support for programs.
- The FCC approved an NPRM for a proposed $20.4 billion Rural Digital Opportunity Fund (RDOF). The new fund would use reverse auctions to allocate a portion of High Cost program universal service funding (*i.e.*, the Connect America Fund) over a ten-year period to deliver a minimum of 25/3 Mbps broadband service to 4 million rural homes and businesses. Priority would be given to faster speeds. Phase I of the RDOF would allocate $16 billion for

"wholly unserved" census blocks through a multi-round auction. Phase II would allocate the balance to partially unserved census blocks and wholly unserved areas not awarded in Phase 1. The $20.4 billion in RDOF funding is coming out of current High Cost support mechanisms such as unused or termed-out CAF funding and the never-deployed Remote Areas Fund – with the money targeted to eligible telecommunications carriers (ETCs).

- The FCC said this month that it is ready to authorize Connect America II (CAF II) funding for Viasat, which was one of the largest winners in the auction, for broadband deployments in 15 states. Also ready for funding authorization are Cherokee Telephone Company, which won Connect America (CAF) funding for parts of Oklahoma, and Horry Telephone Cooperative, which won funding for South Carolina. A company is considered "ready" for authorization when the FCC has reviewed and approved the company's long-form application. Final authorization is given after the company obtains an appropriate letter of credit and a bankruptcy code opinion letter. Funding was not authorized for service areas Oregon as Viasat's petition to the OPUC for Eligible Telecommunications Service certification is still pending. Telecompetitor: FCC ready to authorize funding for viasat.

Microsoft Broadband Initiative

Microsoft Corp. said today that it has set a goal to expand Internet access to 40 million unserved or unserved people globally by July 2022 through global growth of its Airband Initiative, which seeks to build out TV white spaces spectrum. Microsoft said, "Like our work in the U.S., our goal is to empower local partners who know their communities' geographies and needs to solve their community's last mile connectivity challenges. Experience has taught us that diverse challenges require diverse solutions. Bringing broadband access to the world's unserved communities will require much greater reliance on innovative technologies, regulatory approaches and business models. Our experience has shown us that a multi-stakeholder approach is needed to close the connectivity gap. The Airband International initiative will rely on (1) removing regulatory obstacles to TV White Space (TVWS) and other technologies that help our partners extend their networks quickly in unserved, predominantly rural, areas"; (2) "partnering with local internet service providers (ISPs) to provide affordable, reliable internet services"; (3) "enabling rural digital transformation in newly connected areas, with a focus on supporting agriculture, education, rural entrepreneurship and telemedicine, as well as off-grid energy sources where necessary in order to improve rural productivity and livelihood"; and (4) "building a larger ecosystem of support, with a focus on stimulating international financing, to scale connectivity projects beyond our own direct investments." paul.kirby@wolterskluwer.com.

Net Neutrality

On October 1, the DC Circuit upheld in significant part the FCC's 2017 repeal of net neutrality rules, as well as the "transparency rule" which requires carriers to disclose changes in their terms of service. The decision in *Mozilla vs. FCC* was not a complete win for the FCC however, as the Court reversed the FCC on state preemption, opening the door for states to implement their own net neutrality restrictions, thereby ensuring that the Net Neutrality issue will not be resolved anytime soon. Oregon was the second state in the nation, behind Washington, to defy the FCC by passing a law in 2018 that required state agencies contract only with net neutral broadband companies, making some exceptions for when Internet access is necessary for public safety. Private consumers are not covered by that law.

Agriculture

The USDA issued a report earlier this year on rural broadband infrastructure which focused on next generation precision agriculture. Also this year, the FCC announced formation of a federal advisory committee on precision agriculture. There is a growing awareness among industry and policy makers about this important segment of the rural market that demands attention and solutions.

Broadband Mapping

- NTIA announced the release of a new national broadband availability map pilot on October 2, 2019. NTIA said it worked with a group of eight states to create the pilot, a geographic information system platform that allows for the visualization of federal, state and commercially available data sets. NTIA said the map will be made available exclusively to state and federal partners, as it includes non-public data that may be business sensitive or have licensing restrictions. NTIA said it will test the map's functionality and expand it to other states, and add data from additional partners, federal agencies, and industry and accessible commercial datasets. NTIA also said the map includes data the FCC collects twice a year, as well as other federal and non-federal datasets that can inform broadband planning and policy-making. [Ntia: New broadband availability](#).
- USTelecom and major industry groups have filed a summary of their pilot efforts (in Virginia and Missouri) to establish new mapping protocols. The pilot showed that as many as 38% of additional rural locations in Virginia and Missouri are unserved by participating providers in census blocks that would have been reported as served in today's FCC Form 477 reporting. https://ecfsapi.fcc.gov/file.

Internet of Things (IoT)

A new report is issued highlighting the rapid adoption of the Internet of Things (IoT). The trend of connecting devices to the network, in the home, office, and even city is exploding. We may end up with virtually any device that draws electric power, from either a wire, battery, or directly from the sun, becoming a part of the IoT network, which is potentially hundreds of billions of devices. In the home, consumers are embracing the digital home and that means IoT devices. The Consumer Electronics Association reported that consumers spent $96 billion during the last holiday season alone, with much of that spend going towards smart devices. Leading the category were smart speakers, with CEA reporting 22 million units sold just during the last holiday season. That equates to a 44% increase. Similarly, 36% of consumers purchased smart home devices including

aforementioned smart speakers, security cameras, smart lightbulbs and video doorbells
https://etisoftware.com.

State Broadband Activity Updates

Chris Tamarin provided references on 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.

Senator Arnie Roblan - Broadband is critical

In an opinion editorial, Senator Arnie Roblan noted that Oregon policymakers have worked hard to ensure that all areas of our state, including coastal and rural areas, have access to the latest and best infrastructure. Like roads, bridges and utilities, access to broadband internet is critical for rural communities. As new technologies like next-generation 5G wireless networks are realized, it will be more important than ever to ensure that all Oregonians have access to a reliable high-speed internet connection. The need for fast, reliable internet is necessary for all communities across Oregon. The benefits of this technology for education, healthcare, employment have become essential to daily life and it's up to all of us to ensure that no community is left behind.

Service Outage

The Klamath Falls area a service outage last week. At 8:20 AM, Friday, October 18, 2019, a CenturyLink Fiber Optic Trunk Cable located in Jackson County along Dead Indian Memorial Road was cut in multiple locations, causing a widespread communications outage in and around the Klamath Basin. The fiber was cut by a road crew with a boring machine. Charter/Spectrum, CenturyLink, AT&T Wireless, T-Mobile, and Sprint all reported either partial outages or complete outages in the Klamath Basin www.klamathfallsnews.org.

Presentations

Kristi Wilde

Kristi Wilde of the First Responders Network Authority, U.S. Department of Commerce provided a briefing on the nationwide FirstNet initiative. FirstNet is an independent authority within the U.S. Department of Commerce. Authorized by Congress in 2012, its mission is to develop, build and operate the nationwide, broadband network that equips first responders to save lives and protect U.S. communities. The initiative is enabled by 20 MHz of federally owned spectrum dedicated to public safety and $6.5 billion in initial funding.

FirstNet was created to be a force-multiplier for first responders – to give public safety 21st century communication tools to help save lives, solve crimes and keep our communities and emergency responders safe. FirstNet spent in consultation with states, territories, tribal governments, and public safety agencies at every level provided FirstNet with a better understanding of the needs of first responders nationwide. After an RFP bidding process, AT&T was selected as the industry partner and the initiative moved forward to deploy the network to each U.S. state and territory.

2018 was a pivotal year for public safety communications with FirstNet launching nationwide. Accomplishments to date include over 900,000 subscriber connections, over 9,000 public safety agencies subscribed, about 650 markets with dedicated Band 14 Spectrum now in service with "four nines" availability, a separate core network, priority and preemption for FirstNet subscribers on all AT&T commercial bands and 75 dedicated deployable network assets (COWs, flying COWs) are now

available for deployment. It was noted that in addition to primary first responder subscribers, access is now being offered to "extended primary" users such as government, public-works, and school administration.

Objectives going forward include engaging and collaborating with public safety and industry, developing and promoting Public Safety Communications, and investing in the network. The First Responder Network Authority will guide advancement of the Network by depicting a 2-to-5-year view of public safety operational needs, technology trends, network coverage needs and actionable opportunities. Priorities for future investment include the network core, coverage and capacity, enhancing situational awareness, robust voice communications, and positive user experiences during routine, emergency and disaster events. It was noted that coverage in rural areas of Oregon is a challenge. There will be forty-five new cell tours constructed in Oregon to address coverage. It was recommended that all emergency and disaster events that occur be documented to evaluate the effectiveness of the network and gain insights on how to make improvements.

Joe Franell asked that OBAC schedule a briefing from AT&T next year on the progress being made in building the new FirstNet driven infrastructure.

A complete roadmap of the FirstNet plan is available at https://www.firstnet.gov.

Stephen King
Stephen King of MYND Global provided a briefing a new broadband investment strategy. MYND Wired is investing in and building community fiber across the country and believes that digital infrastructure needs to be owned by communities and not by corporations. They believe that economic, social and political power is transferred from outside corporate interests to the local municipal and community interests when the infrastructure is owned by local users. Municipalities and communities all over the United States are getting left behind and missing out on essential economic and social growth opportunities when investment in fiber infrastructure is not made.

In its capital to community model, MYND Wired brings private capital and the expertise needed to install fiber to the home. They believe that there is a lot of capital and investors available. Stephen observed that Warren Buffet alone has $122 billion cash available for investment. The MYND model is to pay back investors and transfer the ownership and control of the fiber infrastructure to the local community in seven to ten years.

In exchange, partners enroll users and local stakeholders to support the viability of the project. This ensures community participation and support from the outset while guaranteeing it meets community needs. The MYND Capital to Community model ensures that the entirety of the connectivity and digital asset ecosystem crucial to the functioning of the municipality or community will be ultimately owned and controlled locally.

This provides multiple benefits to communities, investors and end-users. Net-neutrality is preserved, data ownership and IP development stays with the community, and prices and services are built around community needs ensuring widespread digital inclusion. Unlike connectivity options owned and controlled by outside corporations where money leaves the community on a yearly basis, community owned fiber generates substantial local economic growth for the local

people and businesses. Community owned fiber also returns impressive benefits for investors at lower risk and with a guaranteed exit.

MYND is looking to develop $500 million in Oregon fiber infrastructure projects over five years, and is actively looking for prospects. See more information at myndwired.global.

Stephen Corbató
Stephen Corbató provided an update on Link Oregon. Link Oregon is a new consortium of the four research universities; Oregon Health and Science University, Oregon State University, Portland State University and the University of Oregon, and state government through the Office of the State Chief Information Officer (OSCIO), organized as a 501c3 non-profit corporation, to establish a facilities-based statewide fiber optic network to serve the universities and state government agencies.

Link Oregon will also have a limited capability to also serve public and non-profit sectors and to participate in local peering and broadband partnerships. Target sectors for service expansion include other higher education institutions, K-12 education, public libraries, healthcare providers (public and non-profit), local governments, federally recognized Tribes (9 in Oregon), and other community anchor institutions.

Link Oregon Backbone Network

Work on the network is in progress. Link Oregon has secured more than 2,300 route-miles of fiber-optic cable and is already working with partners to light fiber long-term as a shared, statewide network backbone. A Newport/Corvallis fiber ring has been turned up, fiber segments have been procured and a new CENIC 100 Gbps connection has been established in Eugene. Planned network connection sites include Newport, Portland/Hillsboro, Salem, Corvallis, Eugene, Roseburg, Grants

Pass, Medford/Central Point, Ashland, The Dalles, Bend, Klamath Falls, Pendleton, La Grande, Ontario, Burns, Boise, Idaho, Florence, and Coos Bay over the next three to five years. Link Oregon is seeking partnerships with private and public telecommunications companies.

More information may be found at [Link Oregon website](#).

Work Session

Oregon Broadband Office Plan

Chris Tamarin reported that Business Oregon (Oregon Business Development Department, or Department) is working on a strategic plan for meeting its directives under the Governor's Executive Order and HB 2173 (2019) for presentation to the Legislative Assembly in the 2020 session. The Office will be requesting help and guidance from the Council.

Appointments to the Oregon Broadband Advisory Council

Chris Tamarin reported that progress is being made on the Governor's appointments to the Council, and should have some appointments to announce by the November meeting.

Appointments that are expiring
- Commissioner Steve Bloom representing the Oregon PUC 12-31-19
- Anne Carloss representing Education 12-31-19 (served two terms)
- Lonny Macy representing Tribes 1-1-2019 (served two terms and continues to serve pending new appointment)
- Tom Worthy representing Public Safety 12-31-19

Vacancies
- Seat representing the Office of State Chief Information Officer
- New seat representing the Oregon Department of Transportation [HB 2173 (2019)]
- New seat representing consumers and the public-at-large [HB 2173 (2019)]

The Governor's Office has received Interest Forms from candidates for the expiring and vacant seats.

2020 Broadband in Oregon Report

Chris noted that the next Broadband in Oregon report is due to the Legislative Assembly and the Governor's Office on November 21, 2020. Work on the report will begin in January.

Public Questions / Comments

Leveraging infrastructure projects

Danielle Gonzalez of Marion County had two comments to present. One, she observed that it makes sense to overlay fiber projects with other infrastructure projects, such as water and waste water systems and she wants to explore strategies to achieve that coordination. Two, she observed that Oregon has a network resiliency risk exposure with the network convergence and potential point of failure at the Pittock Block.

John Irwin

Joe Franell recognized John Irwin, who attended the OBAC meeting, for his many years of service including chairing the Oregon Telecommunications Coordinating Council, and contributions to broadband in Oregon.

Meeting Schedule

The October 26, 2019 meeting of the Oregon Broadband Advisory Council was held at the Ashland Hills Hotel & Suites, 2525 Ashland Street, Ashland, Oregon. The next meeting of the council will be held on November 21, 2019, in Salem. Meeting information will be posted on the council website.

Meeting adjourned at 3:30 pm.

Approved by:

Signature on file   November 27, 2019

Joseph Franell, Chair   Date

Oregon Broadband Advisory Council

Signature on file   November 27, 2019

Christopher Tamarin   Date

Business Oregon