Oregon Broadband Advisory Council Minutes

Attendance

Members Present: Stephen Bloom, Miles Ellenby, Joseph Franell, Wade Holmes, Senator Arnie Roblan, Dave Sabala, and Tom Worthy.

Staff Present: Christopher Tamarin of Business Oregon,

Guests: Eric Brown, California Telehealth Network; Katie Cox, Consumers Power; Michael Curri, Strategic Networks Group; Scott France, MYND Global; Frankie Franell and Danielle Gonzalez, Marian County; Jay Gratchner, Verizon; Katie Hawks, John Holman of USDA-RUS; Paul Lineback, Corning Optical Communications; Richard Luebke, Rare Comet; Charlie Manger, Rural 3.0; Ruth McEwen and Judi Richards, NWSDS; Melinda Miller, Don Patten, and Sherry Rinehart, Intermountain ESD; Meg Rowe of ODOT, Brandy Sweet and M Llewellyn, Oregon Cable Telecommunications Association; Stuart Taubman of Zayo Group.

The meeting was called to order at 9:15 am.

Welcome, Introductions, Minutes Approval, Elections

Chair Joe Franell called the meeting to order and asked for guest introductions.

Minutes

Dave Sabala moved that the June 27, 2019 minutes be approved as distributed. Tom Worthy 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.

Economic impact of telecommunications in rural areas

The Foundation for Rural Service (FRS) has reported that rural telecom companies supported $10 billion in economic activity in 2017. The rural telecom economic impact report also found that rural telecom companies contributed over 77,000 jobs that year. Broadband provided by rural telecom companies has a positive impact on 29 different industries, according to the report. For every job created in telecom, two additional jobs were created in other industries, according to the researchers. Related research includes: A 2016 report from the Hudson Institute that found that rural broadband supports $100 billion in e-commerce, and a 2019 report from the National Rural Electric Cooperative Association estimated that the lack of broadband has a negative impact of $68.2 billion in areas served by member companies.

[Telecompetitor: Rural Telecom Economic Impact Report](#)

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: FTTH could be available for 90% of homes

Cybersecurity

- Annual global cyber losses are expected to hit $6 trillion by 2021, with cybersecurity spending projected to exceed a total of $1 trillion for the five years leading up to 2021, according to a new report from Aon quoting statistics from Cybersecurity Ventures. While the immediate costs of a cyberattack can be significant, Aon's report suggested that damage to a business's reputation could cost just as much or even more in the long term. "The reputational crisis resulting from an attack can erode a company's market value, destroy brand loyalty, limit companies' digital transformation efforts and even lead to a credit-rating downgrade," Aon said. "An effective cyber resilience strategy can help mitigate both immediate and long-term financial losses." Business leaders need to make defending against cyber risks a priority. https://www.insurancebusinessmag.com

- School districts are under pressure from cyberattacks. Ransomware, network interruptions and phishing scams are increasingly targeting schools, which are often prime targets because of outdated hardware and software systems, says Doug Levin of EdTech Strategies. The company has tracked 533 cyberattacks on schools since the start of 2016. https://thehill.com

Patterns of Use

A new report from Sandvine tracks all Internet traffic and offers some interesting and revealing insights about data usage. Sandvine is a global network management provider offering a range of analytics and network management solutions. Their report, the 2019 Global Internet Phenomena, tracks Internet usage of over 2.5 billion users across the globe. The usage statistic of 60% on Internet download traffic is video is probably not surprising but does validate what our clients experience regularly. Much of that traffic is Netflix, with an eye-opening stat that 12.60% of the total downstream volume of traffic across the entire internet and 11.44% of all internet traffic is Netflix.

Other Findings include:
- Gaming traffic is now 8% of all Internet download traffic
- Social media is now 6.1% of all Internet download traffic
- File sharing is now 4.2% of all Internet download traffic
- Messaging applications is now 1.6% of all Internet download traffic
- Audio streaming is only .4% of all Internet download traffic

Full Report: https://www.sandvine.com

Broadband Mapping
The Federal Communications Commission voted today to collect more accurate data about which parts of the U.S. have broadband and which parts lack high-speed connectivity. From now on, home Internet providers will have to give the FCC geospatial maps of where they provide service instead of merely reporting which census blocks where they offer service. All fixed providers are required to submit broadband coverage polygons depicting the areas where they actually have broadband-capable networks and make fixed broadband service available to end-user locations. The filings must reflect the maximum download and upload speeds actually made available in each area, the technology used to provide the service, and a differentiation between residential-only, business-only, or residential-and-business broadband services. Fixed providers in the new collection must submit a broadband coverage polygon for each combination of download speed, upload speed, and technology. Where fixed providers offer different maximum speeds to residential and business customers, even if using the same network facilities, they must file separate polygons. Where the offered speed varies by location or distance from network facilities, fixed providers must submit separate polygons to reflect those differing maximum offered speeds. The new requirements are limited to fixed broadband providers, those that offer non-mobile service in homes and businesses. The FCC didn't impose new requirements on mobile providers. https://docs.fcc.gov/public/attachments/DOC-358433A1

Universal Service Fund
The FCC's Office of Managing Director announced that the proposed universal service contribution factor for the fourth quarter of 2019 will be 25%, absent action by the Commission. The 25% assessment on end-user interstate and international telecom service revenues for the quarter is aimed at collecting about $2.16 billion for the FCC's four universal service support programs (E-rate, rural health care, high-cost, and Lifeline) for the quarter.

5G
Verizon announced that fixed 5G Home service will be available in every market where mobile 5G is available. It's "one network," he said -- there's little stopping Verizon from offering both. The carrier is planning a "full" launch for Home late in 2019 using the official 5G standard, so the synchronicity might begin relatively quickly. The initial service ran on an in-house approach to 5G and offers typical speeds of 300Mbps, faster than many landline connections and may be installed by the customer. The service is currently operating in 4 markets, including parts of Houston, Indianapolis, Los Angeles and Sacramento. https://www.engadget.com

Microsoft Airband

A partnership between Nextlink Internet and Microsoft plans to bring broadband to hundreds of rural communities in six states through the Microsoft Airband program. The partnership will provide broadband in Iowa, Illinois, Kansas, Nebraska, Oklahoma and Texas. "This partnership will enable the coming of precision agriculture, IoT, digital healthcare, access to higher education and overall economic growth," said Ted Osborn, Nextlink's Senior Vice President of Strategy & Regulatory Affairs.

Airband was announced in 2017 and subsequently raised the initial goal of 12 projects in 12 states to projects in 25 states. In addition, as of April, 230 companies were in a related projected aimed at helping WISPs with their own deployments. Airband also announced a partnership with Watch Communications. Watch will work with Microsoft to bring broadband to 50 counties in Indiana, 22 counties in Illinois and most counties in Ohio.
https://www.telecompetitor.com

FCC Innovation Zones

New York City and Salt Lake City will be the sites of the first two FCC Innovation Zones and will support wireless research. The two initial sites were recommended by the National Science Foundation's Foundation for Wireless Research. In its proposal NSF said the sites "will enable experimental exploration of robust new wireless devices, communication techniques, networks, systems, and services that will revolutionize the nation's wireless ecosystem, thereby enhancing broadband connectivity, leveraging the emerging Internet of Things (IoT), and sustaining US leadership and economic competitiveness for decades to come." The cities will serve as test sites for research on 5G networks as well as for other wireless communications and network studies, according to the FCC. In addition to the research, parties participating in the research can also conduct unrelated experiments within defined geographic boundaries, though they must also agree not to interfere with incumbent services.
https://www.telecompetitor.com/fcc-innovation

Satellite Broadband

SpaceX says it plans to change its satellite launch strategy in a way that will speed up deployment of its Starlink broadband service and has set a new goal of providing broadband in the Southern United States late next year. SpaceX has asked the Federal Communications Commission for permission to "adjust the orbital spacing of its satellites." With this change, each SpaceX launch would deploy satellites in "three different orbital planes" instead of just one, "accelerating the process of deploying satellites covering a wider service area." "This adjustment will accelerate coverage to southern states and US territories, potentially expediting coverage to the southern continental United States by the end of the next hurricane season and reaching other US territories by the following hurricane season," SpaceX told the FCC. The Atlantic and Pacific hurricane seasons each begin in the spring and run to November 30 each year.

Unlike traditional satellite broadband, SpaceX's low-Earth orbit satellites would be able to provide latency as low as 25ms and gigabit speeds. In order to cover any given region, SpaceX said it must "deploy a sufficient number of nodes to ensure continuous coverage," and "have enough antennas in the right physical configurations to hand off signals."
https://arstechnica.com/information-technology

Digital Inclusion

Comcast announced the biggest expansion to date of its Internet Essentials program. All qualified low-income families in the cable company's service area now will have access to the service which offers low cost discounted broadband and other services and benefits targeting low-income users. Now, approximately 3 million households –which include residents with disabilities in addition to low-income households — will be able to apply. The expansion will bring households eligible for the program to almost 7 million. Internet Essentials appears to be having its intended effect. Last year, Comcast reported that 62% of low-income broadband customers say that the service has helped them or someone in their family find a job. And 93% of those surveyed said that the program has positively impacted their child's grades. Almost all respondents – 98% — said that they use the service for schoolwork and 90% say they use it almost every day. In Oregon, Comcast has connected 52,000 households in the region serving an estimated 208,000 individuals. Comcast predicts that another 100,000 households in the Oregon/SW Washington region will be eligible under the program expansion.

https://www.telecompetitor.com/comcast-internet-essentials

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.

Comcast Enhances Service

Comcast is increasing download speeds for some of its most popular Xfinity Internet packages for customers in Oregon/SW Washington. Download speeds for the company's Performance tier will jump from 60 Mbps to 75 Mbps, while the Performance Pro tier will increase from 150 Mbps to 175 Mbps. The Blast! tier will move from 250 Mbps to 275 Mbps, and the Extreme tier will be upgraded from 400 Mbps to 500 Mbps. The company said about 85 percent of its internet customers in Oregon/SW Washington subscribe to one of these tiers and will have their download speeds upgraded. The speed increases are the latest in a series of moves by Comcast to support growing consumer demand for super-fast, high-capacity internet connections that can not only handle the explosion of connected devices that are powering the smart home, but also offer a single platform to manage and protect them.

https://www.telecompaper.com/news/comcast-increases-internet-speeds

OCHIN receives new federal funding

OCHIN announced that it will receive three years of federal funding totaling $8.1 million to support nearly 100 health centers across the country. The award is part of the Health Center Controlled Network (HCCN) grant program through the Health Resources and Services Administration. Today's award will help OCHIN to leverage technology to improve patient care coordination, reduce provider burden and increase connectivity to state immunizations registries, prescription drug monitoring programs, and Health Information Exchanges. This three-year award makes OCHIN the largest HCCN in the nation, reaching primary care sites for more than two million patients. OCHIN will provide critical training and technical assistance across 14 states

OCHIN is one of the largest and most successful health information and innovation networks, serving over 500 organizations with more than 10,000 clinicians with solutions that improve the integration and delivery of health care services. Learn more at ochin.org. [SOURCE OCHIN]

Oregon apposes proposed T-Mobile – Sprint Merger
Oregon Attorney General Ellen Rosenblum (D.) today joined 15 other attorneys general as a plaintiff in a lawsuit to block the proposed merger of T-Mobile US, Inc., and Sprint Corp. The trial is currently scheduled to begin on Dec. 9. AG Rosenblum said, "It's important that Oregon join other states in opposing the Sprint/T-Mobile merger. If left unchallenged, the current plan will result in reduced access to affordable wireless service in Oregon - and higher prices. Neither is acceptable."

Frontier Communications sale of its Oregon local exchange business
Northwest Fiber, LLC told the Oregon Public Utility Commission that approval of its proposed purchase of the operations of Frontier Communications in Oregon would result in 1 Gbps service to Oregon customers and an investment of up to $300 million to deploy fiber to enhance speeds and service. In testimony to the Oregon PUC, Steve Weed, Northwest Fiber's chairman and Wave Broadband's chief executive officer, said approval of the deal would allow the new company to "upgrade aging ILEC infrastructure and transform it into a world-class fiber network with benefits for over 100,000 Oregon customers and the entire Pacific Northwest." (PUC Docket UM-2028) Earlier this year, Northwest Fiber agreed to pay $1.35 billion for Frontier's broadband assets in Washington, Oregon, Idaho, and Montana. Northwest Fiber is a partnership of Wave Division Capital LLC, Searchlight Capital Partners LLC, and other investors.

Cybersecurity Data Breach
A security breach may have exposed the personal information of up to 122,000 Providence Health Plan dental patients in Oregon, including their social security numbers and other sensitive data. Providence customers were notified late last month by Dominion National, the Virginia-based administrator of Providence's dental program. Dominion says the unauthorized party may have accessed information like patient names, addresses, dates of birth and social security numbers, as well as Providence enrollee information like member identification, group and subscriber numbers. In a subsequent statement, Dominion said it began mailing notices to potentially affected customers in June. Dominion will provide affected members with two years of free access to credit monitoring and fraud protection services. [Source: The Lund Report]

Link Oregon
An agreement between CENIC and Link Oregon will establish a unique regional partnership that will allow both organizations to share resources and expertise in providing extended fiber broadband network capabilities and services to research, education, and other public-service organizations across California and Oregon—and eventually beyond. The agreement establishes Link Oregon as a CENIC State Associate, which gives Link Oregon direct access to CENIC's networks, including CalREN and Pacific Wave, its US research and education backbone networks, its international research and education networks, and its supercomputing facilities. Link Oregon will now benefit from bundled peering; participation in experimental network activities, initiatives, and testbeds; technical support services, workshops, and conferences; and a host of other critical services. This agreement marks the initial phase of connectivity between the California and Oregon networks. [Link Oregon News Release]

Connect America Fund broadband subsidies for Oregon
The Federal Communications Commission recently authorized over $67.6 million in support in Oregon over the next decade for maintaining, improving and expanding affordable broadband. The

support is targeted to smaller rural carriers, traditionally known as "rate-of-return" carriers. The homes and businesses are in sparsely populated rural areas where the per-location price of deployment and ongoing costs of providing broadband service are high, requiring support from the FCC's Universal Service Fund to facilitate network improvements and keep rates reasonably comparable to those in urban areas.

In return for the federal support, carriers must maintain, improve and expand broadband throughout their service areas, including providing service of at least 25 Megabits per second downstream and 3 Mbps upstream to over 363,000 locations nationwide, including more than 37,000 locations on Tribal lands, and including nearly 4,700 rural homes and businesses in 10 counties in Oregon. https://www.ktvz.com/news/fcc-grant-to-boost-jefferson-county-rural-broadband

Broadband Related Conferences to be held in Portland in 2020
- The National Digital Inclusion Alliance's annual conference is scheduled for April 7-9, 2020.
- The Northwest Regional Telehealth Resource Center's conference scheduled for April 14-18, 2020.
- The National Association for Rural Mental Health's conference scheduled for August 17-20, 2020.

Presentations
Barry Walton
Barry Walton of Corning Optical Communications provided a briefing on the company's interest in working with local communities on fiber network projects.

The deployment of FTTH continues to grow throughout the world, connecting subscribers in communities large and small to ever-evolving high-bandwidth services. Where competition to secure customers is fierce, telephone and cable companies see the value pushing fiber infrastructures deep into neighborhoods to the edge of the network. However, many operators still find themselves at a cross-roads when deciding to invest in an all-fiber network.

This session will cover real world concerns each operator should consider when embarking on an FTTH deployment; experiences from the onset of a project plan through network turn-up with focus on business case expectations, planning and design, construction, implementation, system quality and network operation. Attendees will gain insights into how effective planning up-front can pave the way to a successful all-fiber network deployment.

Corning Optical Communications is an industry leader with sales of $4.2 billion (2018), growth greater than twice that of the industry over the past five years, over 197 years of FTTH engineering experience, over 52 million homes passed with Corning's hardened connector technology and over one billion kilometers of fiber delivered to customers. Corning has created an ecosystem based on its connectivity solutions that includes distributors, other manufacturers, contractors, consultants, content service providers and financiers that bring fiber networks to communities.

Broadband is essential service and we need to invest in fiber broadband networks to retain and grow population, attract new businesses and grow existing businesses, enable social and essential

connectivity for communities, reduce municipal operating costs, and improve the quality of healthcare and education.

Local power utility companies are in an excellent position to provide a solution. They have existing utility infrastructure and operations in rural areas. Many are locally owned cooperatives with a history and mission to serve the local community. They have the capacity and expertise to manage large capital construction projects. Fiber broadband networks have the ability to level the playing field. To deliver that critical access to people wherever they choose to live.

Deploying fiber networks is the challenge, and Corning is committed to being part of the solution. Corning has been innovating in the access networks space for over 10 years. Our product solutions have been used to pass more than 52 million homes worldwide. But it's going to take more than products to meet this challenge. It's the experience and expertise that we've gathered along the way. We have seen thousands of successful deployments and we want to share that knowledge. We want to make local community deployments successful.

Corning can provide assistance from training on installation best practices to assisting with community needs and assessment, network design, cost modeling, funding, product selection and construction. Corning is partnering with Strategic Networks Group to sponsor access to a Community Readiness Assessment tool to help communities begin strategic planning. Because the promise of ubiquitous, affordable broadband access for all Americans wherever they call home is far greater than the challenge it presents. Corning is interested in engaging with local communities in Oregon and is partnering with Strategic Networks Group to sponsor access to a Community Readiness Assessment tool to begin strategic planning.

Don Patten
Don Patten, the General Manager of MINET and Willamette Valley Fiber (WVF) provided a briefing about MINET, WVF and options for expanding broadband in rural areas.

Formed in 2004 under ORS190 with an Intergovernmental Agreement between the Cities of Monmouth Independence. MINET face many challenges including underestimated costs, operational challenges, and owner conflicts along with a major economic recession. Even though MINET intended to expand operations from its inception, the addition of a 3rd operational unit didn't occur until the IGA was 14 years old. MINET persevered and overcame its challenges to become efficient, competitive, stable, recognized and supported by the local communities and leaders.

MINET's ultimate success attracted the interest of a private investment group, American Fiber Optics, and a partnership was formed to expand operations and coverage areas. A fiber-to-the-premises network was funded and deployed in the City of Dallas doing business as Willamette Valley Fiber, managed by MINET.

Given its history and experience, MINET updated its approach to bring new FTTP service to a community. WVF proactively engaged with the local community becoming a part of local events, creating its own events, becoming a supporter of local organizations and initiatives, serving on local boards and committees, being visible, and establishing a local office to be accessible.

In addition to the expansion to Dallas, MINET has also completed upgrades to all of its equipment in Monmouth and Independence ahead of schedule and under budget. On its current strong foundation, MINET wants to continue its mission to bring broadband to neighboring unserved communities. MINET is poised for continued growth and expansion of coverage.

MINET has also decided to become a champion for the cause of telehealth / digital health in an effort to improve the physical and mental health of the residents and diverse populations of Polk County including children, seniors, and veterans through telehealth enabled by the broadband network.

Rural broadband remains a challenge and the digital divide continues to exist. 137 of Oregon's 212 cities have populations of 2,500 or less with limited resources and expertise to address the rural broadband challenge. A solution could be a consortium of cities to pool resources to meet a common need.

Work Session
Oregon Broadband Office
Chris Tamarin reported that Business Oregon (Oregon Business Development Department, or Department) is seeking proposals from a consultant or consulting firm(s) with experience in broadband telecommunications data collection, analysis and best practice research specific to the development of strategies and public investments in broadband infrastructure and broadband adoption and utilization.

The Oregon Broadband Assessment and Best Practices Study must identify:

1. Oregon's current broadband infrastructure and broadband service availability d, including service providers, technologies, quality (transmission speeds) and cost. Format for delivering this data is to be negotiated. Business Oregon is not providing any data.

2. Geographic areas of the state that are unserved and underserved. "Underserved" means data published by the Federal Communications Commission, other federal agencies or the State of Oregon, a geographic area within one or more census blocks, within which there is no terrestrial service provider offering residential wireline or wireless broadband service at a speed of at least ten (10) megabits per second for downloads and one (1) megabit per second for uploads.

3. Schools, libraries, and local governments in the state that are unserved and underserved, utilizing available secondary sources, not primary research.

4. Benchmark estimated costs for broadband infrastructure deployment to serve all identified unserved and underserved users.

5. Relevant best practice programs, policies, and strategies from across the nation (private, public, and public-private partnerships) to promote and finance broadband infrastructure deployment, adoption and utilization.

6. Private, non-government funding sources available for broadband infrastructure deployment, adoption and utilization projects, that are available to Oregon applicants.

It is also required that the reported data be validated for accuracy.

Chris also reported that OBO will draft a strategic plan for meeting its directives under the Governor's Executive Order and HB 2173 (2019) to be presented to the Legislative Assembly in the 2020 Session and will be looking for assistance and guidance from the Council over the next few months.

Appointments to the Oregon Broadband Advisory Council
Chris Tamarin reported on the current status of OBAC seats that need to be filled by the end of the year.

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.

MINET Letter of Support
MINET submitted a request for letter of support from the Oregon Broadband Advisory Council for its plan to become a champion for the cause of telehealth / digital health in an effort to improve the physical and mental health of the residents and diverse populations of Polk County including children, seniors, and veterans through telehealth. Don Patten is meeting with members of the Oregon Congressional Delegation in Washington, DC in October to gain their commitment of support for "digital health" initiatives in Polk County.

Action Item
Dave Sabala moved that OBAC provide a letter of support of MINET's efforts to promote telehealth in to improve the physical and mental health of the residents and diverse populations of Polk County. Senator Roblan seconded the motion. The motion was approved by the Council.

Public Questions / Comments
Connected Care Pilot Program
Eric Brown noted that the FCC has announced a $100 million Connected Care Pilot Program led by Commissioner Carr to fund three year grants for demonstration projects for how Broadband can be used to support low income population in Medicare and Medicaid Programs to improve patient care delivery.

Sherry Reinhart thanked all those that helped her in pursuing matching funds for several E-Rate Program projects in Eastern Oregon.

<u>Marian County Projects and Opportunities</u>
Danielle Gonzalez reported that Marian County is working on developing a dig-once police and is looking for a consultant. The County is also working with the Cities of Idanha and Detroit on infrastructure projects that can also support broadband infrastructure. Danielle shared that students in these communities are victims of the Homework Gap. The County is also working with the Cities of Silverton and Jefferson on potential fiber projects. Marian County is also working on an "Agriculture Innovation Corridor" project to bring fiber to agricultural lands. The County is also researching its authority to create Public-Private Partnerships for broadband projects and will appreciate help in overcoming any barriers that might be identified. Danielle also noted the need that small communities have for technical assistance in accessing federal funding programs, as they do not have the resources or expertise to be successful. Danielle also noted a recurring barrier to broadband deployment of boring under railroad tracks and rights of way. Danielle also noted the need for government to be anchor tenants for broadband investment, and not to build single user networks that take a large user out of the market making it less attractive for private investment.

<u>Northwest Senior and Disability Services (NWSDS)</u>
Ruth McEwen and Judi Richards shared information about NWSDS, a local intergovernmental agency serving seniors and adults with physical disabilities in five Oregon counties: Clatsop, Marion, Polk, Tillamook, and Yamhill. nwsds.org.

<u>Oregon Connections Telecommunications Conference</u>
The 2019 conference has been announced, the website is live, and this year's theme will be Smart Communities. The conference presenters and attendees will be exploring *Smart Communities*: strategies, applications, enabling technologies and Oregon initiatives. More information may be found at [Oregon Connections Info](#).

Meeting Schedule
The September 26, 2019 meeting of the Oregon Broadband Advisory Council was held at the Local Government Center, 1201 Court Street NE, Salem, Oregon. The next meeting of the council will be held on October 23, 2019, in Ashland. Meeting information will be posted on the [council website](#).

Meeting adjourned at 11:45 pm.

Approved by:

Signature on file _____   October 23, 2019
Joseph Franell, Chair   Date
Oregon Broadband Advisory Council

Signature on file _____   October 23, 2019
Christopher Tamarin   Date
Business Oregon