

Oregon Broadband Advisory Council Meeting

March 27, 2020

Virtual Meeting

Attendance

Members Present: Katie Cox, Kurtis Danka, Miles Ellenby, Joe Franell, Michael Heffner, Wade Holmes, Lonny Macy, Representative Pam Marsh, Galen McGill, Rick Petersen, Jeremy Pietzold, Cheri Rhinhart, Senator Arnie Roblan, and Dave Sabala.

Staff Present: Christopher Tamarin of Business Oregon

Guests:

Steve Corbató, Link Oregon; Beth Fox and Rebecca Gibbons, City of Portland; Diane Garcia, Graybar; Danielle Gonzalez, Marion County; Jenna Jones, League of Oregon Cities; Eric Rosenberry, NWAX; Montana Lewellan, Oregon Cable Telecommunications Association; Rosalee Locklear, Oregon Office of Rural Health; Carrie Pipinich, Mid-Columbia Economic Development District; Nate Stice, the Governor's Office; Peter Tamayo and Carla Wade, Oregon Department of Education; Commissioner Mark Thompson, Public Utility Commission of Oregon; Brant Wolf, Oregon Telecommunications Association.

The meeting was called to order at 9:18 am.

Welcome, Introductions

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

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Jeremy Pietzold moved that the January 23, 2020 minutes be approved as distributed. Wade Holmes seconded the motion. The council approved the motion.

National and State Broadband Activity Updates

Chris Tamarin reported on the following national broadband activity relative to the COVID-19 pandemic crisis.

Chris recounted that in the February 27, 2020 OBAC meeting, after public input, Jeremy Pietzold noted that the Council hadn't talked about the Corona Virus. He related what was happening in other countries and shared that Clackamas ESD was doing contingency planning for what they would do if their staff could not come in to work and that the ESD was assessing which employees could be fully functional working remotely, and the Council had an interesting discussion of the this *abstract* scenario. Thirty days later, that abstract scenario is reality.

Chris reported that the nation including the telecommunications industry is mobilizing in response to the COVID-19 threat to public health.

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The Federal Communications Commission (FCC) has asked carriers to take a Keep Americans Connected Pledge during the pandemic asking that they

- Not terminate service to any residential or small business customers because of their inability to pay their bills due to the disruptions caused by the coronavirus pandemic.
- Waive late fees that any residential or small business customers incur because of their economic circumstances related to the coronavirus pandemic; and.
- Open Wi-Fi hotspots

Over 500 ISPs have signed the pledge as of today's meeting date.

The federal government is issuing special changes to rules, terms and conditions for federal programs in response to the crisis.

- Medicare expanded coverage for clinical services via telemedicine nationwide to help seniors receive help with health problems while staying at home
- Extended application deadlines for multiple broadband funding programs
- Granting spectrum use to expand mobile wireless capacity (US Cellular)

Internet service providers are responding with offers of free service, suspension of data caps and other adjustments to assist end-users. AT&T, Verizon, TDS, Charter Spectrum and Comcast were noted as examples.

Other companies like Microsoft, Google and Zoom are offering access to remote meeting tools, remote collaboration tools, services and platforms.

The crisis has produced a surge in network traffic, a change in usage patterns and increased demand for broadband internet access services.

Telecommunications networks in Oregon have supported the surge so far with no reported degradation of service quality though this experience was not the case everywhere. BroadNow reported that in 88 of the 200 most populous US cities, Internet users experienced some degree of network degradation over the past week compared to the 10 weeks prior, and 27 cities suffered speed reductions of at least 20 percent. The cities of Austin, Texas; Winston-Salem, North Carolina; and Oxnard, California experienced speed reductions of more than 40 percent. The internet speed analysis report may be found at <https://broadbandnow.com/report/internet-speed-analysis-march-15th-21st/>.

- The Northwest Access Exchange (NWAX) saw network traffic increase by almost 70% in March over the previous month.
- OpenVault reports that bandwidth traffic during business hours has increased by 41% for the average subscriber.
- Verizon reports a 25% increase in voice traffic and the duration of calls is up 15% and data traffic is 22%
- AT&T reported wireless voice traffic was up 44% and that Wi-Fi VoIP calling also jumped significantly, up 88%
- Virtual Private Network (VPN) usage has increased 65%, according to NordVPN.

The nation is relying on broadband telecommunications for social distancing through e-commerce, telework, distance education, and telehealth technologies and applications.

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Legislation is being proposed at the federal level in Congress.

- The *Keeping Critical Connections Act* would provide \$2 Billion for Rural Broadband Providers if passed into law.
- The \$2.2 trillion Coronavirus Aid, Relief, and Economic Security Act (CARES Act) has passed the Senate and is before the House of Representatives including an additional \$125,000,000 for USDA broadband programs and an additional \$50,000,000 for the Institute of Museum and Library Services.

In Oregon,

- Governor Kate Brown declared an emergency due to the public health threat posed by COVID-19, closing schools and colleges, restricting public gatherings, banning onsite consumption of food and beverages, and encouraging all businesses to implement social distancing measures.
- Governor's Executive Stay Home – Save Lives Order #20-12
 - https://www.oregon.gov/gov/Documents/executive_orders/eo_20-12.pdf

The Oregon Health Authority issued a temporary administrative order to amend its rule to ensure telehealth services are reimbursable to healthcare providers.

Chris noted that the unfolding impacts of COVID-19 are shining a new light on the digital divide as governments, businesses, institutions, healthcare providers and schools all move to employ telecommunications solutions to impose distance between people, contain the spread of the virus, and to maintain operations.

Work Session

Representative Pam Marsh asked that a special meeting of the Council be called to determine if there are recommendations that OBAC can offer to help address the crisis in Oregon.

Rep. Marsh also observed that the crisis has served to create an even greater focus on the value and need for broadband infrastructure and services, in particular for healthcare and education. She noted that there is nothing like a crisis like this to make us aware that technology provides us with tools to make it through.

Rep. Marsh would like the Council to consider if there is anything that OBAC can recommend to help the state meet the needs resulting from the crisis, support our service providers as they are stepping up to help, advocate for what will be needed to recover from this crisis, and advance the broadband agenda.

Rep. Marsh noted that Senator Roblan is serving as Chair of the [Oregon Legislature's Joint Special Committee on Coronavirus Response](#) (JSCCR).

Sen. Roblan reported that the JSCCR is charged with getting ready for a Special Session of the Legislative Assembly when and if one is called to address COVID-19 issues. It is working to

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- Identify actions that will support economic relief and household stability for low-income workers and small businesses who are at risk of being significantly impacted by the COVID-19 pandemic.
- Produce budget and policy recommendations for legislative action.
- Monitor Oregon's ongoing public health response and, if needed, make recommendations for further legislative action

Key to that process is understanding what the Federal Government is doing and what the CARES Act and other legislation will provide, and how Oregon can receive those resources. Until we know that as well as understanding all the issues facing us, rushing into a Special Session does not make sense and taking the time to plan and prepare for a session does make sense. We also need employment and revenue data analysis that incorporates the COVID-19 crisis impacts to the state's economy. The Special Session when called will likely have a COVID-Only agenda.

Joe Franell observed that there are those that are embracing the shelter-in-place order to the exclusion of doing business, and then there are those that believe we need to do both to sustain operations, the economy and the supply chain, education, healthcare delivery, and in the case of telecommunications broadband as an essential service to do that. Joe believes that we need to stay safe, but we also need to continue to function. He also believes that there is confusion about what we are supposed to do and are being ordered to do. Rep Marsh agreed that it is not clear and is confusing, and that as far as she is aware, Oregon does not have a list of designated essential services or businesses.

Brant Wolf reported that he was on a call with the Governor's Office and Public Utility Commission and received assurances that communications was considered a "critical infrastructure" and that service providers can continue to work. Joe was glad to hear that, but he had not received that message.

One OBAC recommendation should be that there is clear messaging to broadband service providers as well as to broadband service customers about how broadband is classified and being treated during this crisis. Joe is concerned that the crisis will put significant financial and operational strain on service providers, while at the same time sending the message to customers that everything is free. *We need clear messaging to both.*

Recognition of the voluntary support that service providers are giving and encouraging their support is recommended. There will be harm to the industry during this crisis. If service providers have their reserves depleted because customers are not paying their bills or expect free service, they are not going to be positioned to make the needed investments we will need in infrastructure going forward. Providers are relaxing credit requirements, installing service and deploying equipment in the field that they may never recover, or receive payment for. The extent of the costs is unknown.

Wade Holmes added that service providers need short and long term support to increase capacity. Personal Protective Equipment (PPE) is a major need as service providers are having trouble along with everyone else in obtaining supplies. Wade noted that ISPs are taking on unusual expenses for the public good (60 day free, relaxed payment terms, relaxed credit checks, rapid install, etc.). Where needed, relaxed permitting or Right-of-Way access could help offset time and expense

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constraints to provide additional capacity where there are opportunities to provide short term relief.

Wade also observed that the U.S. has an advantage in that we're trailing China and parts of Europe in this pandemic and can learn from what they observed in broadband networks. Even within the U.S., from community-to-community and operator-to-operator, things are evolving quickly, but we're all focused on the best outcomes. Typical engineering cycles are 18 months, many operators are thinking differently about how to handle congestion, and vendors appear to be supporting them.

That said:

- Chinese operators saw as much as a 60% increase in broadband demand during the peak of their outbreak
- US operators today are seeing about 30% increase in demand, and it varies at peak hour by +10% or more depending on demographics
- The good news is that we're not seeing a major increase in upstream demand, which could be harder to manage and is a constraint on some network architectures
- Operators still need to be able to engage with customers and the network, for maintenance and installs (this is possibly a bigger issue than capacity)
- Peering points and backbone providers are doing okay, access (last mile) is our greatest concern

We need to ensure the State recognizes telecommunications field workers, maintenance and service technician workers as critical, and ensure they have resources to work safely and move freely without creating public risk.

Other problems are a loss of contractors to do work and an interrupted supply chain for equipment and supplies. Many construction projects may be delayed and we may need some relief on due dates on government funded projects.

Wade also suggested that the Council consider recommending some benefit for essential service providers that have to invest in equipment or materials that will not have a value for them post crisis.

Dave Sabala reported that he spoke with Douglas FastNet (DFN) and that broadband demand has noticeably increased but not as much as he anticipated. Also, demand for DFN hosted voice service that enables users (including healthcare folks) to take their work phones home with them is spurring increased, but manageable demand for Power Over Ethernet (POE) devices at home.

Joe Franell recommended that the Oregon ISP responses to COVID-19 be tracked. Jeremy Pietzold added that one of the questions that I has been asked of me to find out at the meeting is for ODE/K12 folks in the state. They are asking me to ask is if there is a database or a list and if not could one be started of internet service providers that are offering free or reduced prices for K12 students during this time while school is shut down. Maybe one could be put on the website once one is created.

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Jeremy reported that school Information Technology departments and technology staff are struggling with trying to find solutions and provide help to administrators, teachers, students and their parents to get connected and be functional. Logistics and supply chain breakdowns are a severe challenge. Not all packages are being delivered, but are being returned to sender marked CORONA VIRUS delivery failed. This has caused problems in that the IT world has long been working on a just in time delivery model where back-up parts are not in local inventory. Computers and laptops are in short supply and difficult to find. Schools are scouring the country for Chrome Books. The digital divide will not be solved in one week. Some districts are asking teachers to call every student by telephone, and even that has a number of challenges. Many households no longer have a land-line, and many people are reluctant to answer phone calls due to robocalls.

Another recommendation could be for public schools and libraries to make their Wi-Fi internet access networks available 24/7 even if school or library is closed, and to redirect the network to serve public areas like parking lots outside of the buildings.

Dr. Miles Ellenby reported that over the past few weeks we have seen a transition from the early-adopter champion phase for telemedicine to everyone. There has been what was typically years of program development and change management taking place in weeks. Prior to the crisis, Oregon Health and Science University Hospital (OHSU) was conducting about one percent of its clinical visits with telemedicine, this week that level was sixty percent and is climbing. This has also enable clinical staff that are quarantined to continue to deliver care, remotely. Regarding inpatients, there is application to limit person-to-person contact there as well. There has been a relaxation of restricting federal regulations. That also needs to be carried down to the state level. Dr. Ellenby offered that it appears that social distancing is working to slow the spread of the virus and "bend the curve." The fact that OHSU had an existing telehealth program and infrastructure enabled it to ramp up quickly in response to the crisis. This varies by health system.

OBAC recommendations will be for short-term action and for long-term action.

Short-term

Any immediate relief for the increased demand for broadband services and capability for the most part must rely on infrastructure that is currently in place and in service. New broadband infrastructure deployment is a long term solution due to constraints on labor, constraints on equipment, and a poorly functioning supply-chain.

Recommendations were suggested and discussed and include:

- Need clear messaging to broadband service providers and the customers they serve that broadband is essential service.
- Recognize and encourage the voluntary support that service providers are giving, manage the expectations of customers, and reinforce the responsibilities of customer.
- Establish a "Broadband COVID-19 Task Force" under the Office of Emergency Management to monitor developments and problems to help mitigate any problem issues.

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- Ask service providers to share information on network performance and advise the state if there– is service affecting congestion on their networks.
- Internet Service Providers (ISPs) should be encouraged to enter into mutual-support agreements to have in place in the event that network performance problems develop.
- Plan for demand-side management actions working through carriers, content providers and end users to manage traffic loads in the event that service affecting traffic congestion develops on broadband networks.
- Recommend that on-line classes and meetings stagger start times. Don't schedule everything to start at the top of the hour (this is a form of demand-side load management).
- Enable license holders to expand the bandwidth on a temporary basis if needed without an additional license in rural areas where microwave is providing backhaul.
- Connect more of the state's healthcare systems to NWAX.
- Connect more of the state's largest employers such as Intel and Nike to NWAX.
- Coordinate the supply of refurbished end-user devices that can be distributed into the community free or low-cost.
- Promote the addition of new public WiFi internet access hotspots.
- Repurpose WiFi hotspots in schools, libraries, fairgrounds and other public locations to increase public access, increase hours, and repurpose networks to serve public areas like parking lots outside of public buildings.
- Others to be determined.

Long Term

Though the COVID-19 pandemic has brought urgent attention to the Digital Divide, the situation and trends that make it important are not new. OBAC's long term recommendations have already been presented and are well documented.

- *Broadband in Oregon – A Report by the Oregon Broadband Advisory Council, November 2018*
<https://www.oregon4biz.com/Broadband-Office/OBAC/Reports/BroadbandRpt2018.pdf>
- *Oregon Broadband Office Strategic Plan, January 2020*
<https://www.oregon4biz.com/dev/www/BOR/Broadband-Office/OBAC/Reports/BroadbandStratPlan2020.pdf>
- *Oregon Statewide Broadband Assessment and Best Practices Study, January 2020*
<https://www.oregon4biz.com/assets/docs/SNGStudy2020.pdf>

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If a Special Session is called, it will be an opportunity to address state funding for broadband so as not to lose another year waiting for the next legislative cycle. It would be an opportunity to provide state funding to address the three main crisis driven areas of need; telework, telehealth, and distance education.

State level funding for broadband response assistance and support has been recommended and previously introduced in bills, but unfortunately...

- HB 2184 (2019) creating an Oregon Broadband Fund for this purpose passed the House but did not make it to the Senate floor for a vote
- HB 4079 (2020) creating an Oregon Broadband Fund passed the Joint Committee on Ways and Means but did not make it to the House or Senate floors for a vote

OBAC will continue to work on COVID-9 crisis recommendations to be delivered in a letter to the Governor, the Speaker of the House and the President of the Senate.

Public Questions / Comments

Eric Rosenberry of NWAX, the internet peering exchange in Oregon interconnecting nine data centers around the Portland area, reported that NWAX is experiencing

- Traffic has moved from 100 Gigabits per night to 165 Gigabits per night.
- Members are increasing the capacity of their connections in some cases by a factor of 10x.
- Despite the increases in traffic, there has not been any service affecting congestion.
- Backbone network infrastructure has been increased recently in anticipation of the Zply fiber takeover of Frontier Communications.
- NWAX has expedited current upgrade projects.
- Ordered 800 Gigabit of transponder capacity in Portland and Hillsboro.

Eric volunteered himself and the NWAX pool of volunteer engineers and technicians for any special projects needing technical expertise and evaluation. Jeremy Pietzold commented that Oregon is very fortunate to have NWAX in place and robust as an internet exchange. The traffic loads that are being carried and exchanged are significant and the states network infrastructure would be in jeopardy if it was not there. Eric offered the recommendation of getting more of the state's healthcare systems connected to the exchange as well as the state's largest employers such as Intel and Nike get connected to the exchange.

Rebecca Gibbons of the City of Portland Digital Inclusion offered the following from Portland's local Digital Inclusion Network community.

- There is a need to increase the supply of refurbished devices that can be distributed into the community free or low-cost. We are calling on all government agencies and large corporations to find and release any surplus computers to local refurbishment organizations. We are asking community leaders and elected officials to join us in writing letters of support such as the one from Mayor Wheeler [here](#), in light of the COVID crisis. For agencies and companies connected to the Portland community, we encourage donations directly to *Free Geek* but donations can also be made through a campaign led by the National Cristina Foundation - <https://cristina.org/covid-19/> Or donatetechnology.com
- When it comes time to distribute stimulus money granted to the state, we hope some of that funding is allocated to address the digital divide, which has become a matter of public safety. We are seeing a critical need to subsidize Internet service costs for low-income families for two years, to purchase refurbished devices so they can be distributed free of

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charge, and to employ technical support staff that can help residents get online and begin using the technology effectively.

- We have developed a resource page for our local Digital Inclusion Network that includes updates on ISP services offered in response to COVID. We are updating these resources daily and our DIN members are weighing in on information/resource they have to offer or need. www.portlandoregon.gov/DEAP click on the Get Internet Service, Device, and Training tab

Steve Corbató recommended that there be a continuously meeting committee or “crisis task force” or group to monitor developments and problems to help mitigate any issues. Chris suggested that a Broadband Task Force would need to be attached to some authoritative office or agency, like the Governor’s Office or the Office of Emergency Management. OBAC as an advisory committee has no authority and has no budget. Rep. Marsh will inquire at the Office of Emergency Management to see if broadband is on their watch-list as an issue to manage. Steve also recommended that ISPs be encouraged to enter into mutual-support agreement to have in place in the event that network performance problems develop.

Brant Wolf reported that the Oregon Telecommunications Association member telephone companies, to date, have not experienced any capacity problems or issues due to the increased traffic or change in usage patterns. He noted that cash-flow issues are not here now for the independent telephone companies, but may appear as issues in ninety to one hundred and twenty days out after services are provided for free and customers opt not to pay their bills. Brant also warned that we need to have some demand side management of large software releases, notably gaming software which could create network congestion. We need to move any non-time-sensitive releases to off-peak hours for the benefit of all users.

Carrie Pipinich offered information on COVID-19 responses in the area of economic development and her work with the Regional Solutions Team. Work has begun to put together economic recovery teams with the most immediate task of connecting local businesses and the workforce to available financial assistance programs. There is a need to plan for how we recover from this event, and broadband needs to be a component of those plans. Connectivity will be key for economic recovery.

Nate Stice reported that the Governor’s Regional Solutions Team has been directed to stand up regional economic recovery teams to assess impacts and formulate strategies to recover beginning with a tactical response to the needs of small businesses and local workforce. The groups will work to identify regional needs and connect them with available resources. They also want to coordinate these groups with emergency management teams that are also being organized around the state to address public health and safety issues. The focus will be on both short term response and long term recovery. Rep. Marsh suggested that these organizations may prove useful in documenting gaps and impacts and addressing the broadband needs of rural areas. Rep. Marsh suggested that OBAC recommend that broadband be part of the agenda.

Carla Wade reported that K-12 schools statewide are moving to distance education / on-line learning methods beginning on April 13. Some school districts are well prepared with trained staff and existing infrastructure and others are not. A major challenge is the availability of terminal devices and other equipment like WiFi hotspot routers. Delivery times for equipment not on-hand

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on the shelf can be up to twelve weeks. School districts are scrambling to provide training for teachers and help for parents that will need to play an active part. The Oregon Department of Education has been putting together support materials for the schools, students and parents. ODE is sending out a survey to the school districts to collect information on the status of student connectivity. The Oregon Public Broadcasting System has been engaged to see how it might provide assistance. We know we have gaps, and we will need to be creative in coming up with solutions and will need the help of the broadband community. Additionally, teachers will need to use videoconferencing to work with students in the younger elementary grades.

Carla noted that SETDA www.setda.org recently stabled an eLearning Coalition to provide resources and to share best practices for school districts making the transition to on-line course delivery.

Meeting Schedule

The March 27, 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 April 23, 2020, in Salem or as a virtual on-line web-conference. Meeting information will be posted on the [council website](#).

Meeting adjourned at 12:55 pm.

Approved by:

Signature on file

Joseph Franell, Chair
Oregon Broadband Advisory Council

April 23, 2020

Date

Signature on file

Christopher Tamarin
Business Oregon

April 23, 2020

Date