

April 14, 2022

Representative Kelly Merrick, Co-Chair House Finance Committee State Capitol, Rm. 500 120 4th St. Juneau, AK 99801

Representative Neal Foster, Co-Chair House Finance Committee State Capitol, Rm. 505 120 4th St. Juneau, AK 99801

Dear Co-Chair Merrick, Co-Chair Foster, and Members of the Committee,

Thank you for your continued work on HB 363 regarding a statewide broadband office. We appreciate the opportunity to offer written testimony in regard to this legislation.

Quintillion is the first and only telecommunications operator to build a subsea and terrestrial fiber optic cable network in the U.S. Arctic. We are a wholesale broadband service provider that offers middle mile service for last mile service providers. We bring high-speed broadband service to the most strategic and challenging environment on earth. Our fiber network is designed to withstand the world's harshest conditions and is the most secure form of data connectivity.

Quintillion has invested more than \$280 million in its existing network, which has been operational since 2017, and currently serves the Alaskan communities of Nome, Kotzebue, Point Hope, Wainwright, Utqiagvik, Oliktok Point, and Prudhoe Bay/Deadhorse, as well as the oil and gas infield. These locations are either receiving, or are capable of receiving, broadband services at speeds of 100Mbps up to 2Gbps service, with unlimited additional capacity to meet future broadband demand and to service other needs such as cellular backhaul, education, healthcare, and emergency responders. Our investment in fiber is designed to last 25 years or more.

In January of 2021, Quintillion completed the installation of its Arctic High Latitude Data Acquisition (HiLDA) ground station in Utqiagvik. This is the highest latitude satellite ground station on U.S. soil that is equipped to capture data from polar orbiting earth observation and communications satellites. Quintillion has plans to expand its ground station operations in the coming years.



1-800-673-4394

201 East 56" Avenue, Suite 300 Anchorage, Alaska 99518



Our business model is based on sales of broadband network services to government clients and commercial telecom providers. Quintillion also maintains strategic relationships with Alaska Native Corporations. This distribution model allows for multiple broadband access providers in markets where there was previously no competition, thereby incentivizing improved products, price, and services for end users.

The state broadband office, as proposed in HB 363, is a requirement for Alaska to receive its share of broadband funding from the Infrastructure, Investment and Jobs Act (IIJA). IIJA provides a unique opportunity for Alaska to close the digital divide and bring high speed broadband service to all Alaskans, and we do not want to waste this once in a lifetime opportunity. Therefore, we offer the following testimony, and specifically ask the Legislature and the Administration to pay attention to the issues of efficiency, sustainability, and affordability, as outlined below.

- 1. **Efficiency** Evaluate and analyze the most efficient way to construct scalable and reliable networks using all broadband providers.
- Seek out the most efficient, scalable, and leverageable expansion plans. There will be projects and applications that overlap. The state should prioritize projects that leverage existing and available infrastructure to the extent it is scalable. A strong foundational platform is essential as we plan and construct network extensions.
- Overbuilding where existing scalable infrastructure exists should be discouraged if not inadmissible. However, over building network infrastructure that is at the end of its useful life should be allowed. This would permit incumbent local operators to upgrade existing systems to newer and more advanced broadband capable local networks.
- 2. Sustainability Sustainability is of the utmost importance. Planning and constructing systems are a one-time event. There are many companies capable of initial construction. However, operating and maintaining the system (for the life of the system) is an expensive and long-term commitment. Projects must be sustainable not only from an initial capital cost perspective, but also from a long-term operations and maintenance perspective. Even the most well-constructed networks will have failures due to weather and various other factors. All applicants must demonstrate the ability to not only build the initial network, but to also operate the networks as well as repair network faults within reasonable timeframes. The service providers themselves should be experienced in these operational areas and sustainable from a financial standpoint as well.



1-800-873-4394



- Set the bar high and prioritize applicants who are qualified service providers with existing systems in rural Alaska and have a successful history of delivering broadband service to rural Alaska.
- Providers must own and operate a core network already connected to the major internet exchanges and cloud services providers.
- Discourage one-time event players seeking equipment and satellite services commissions.
- Awarded providers should be able to stand behind strict "service level agreements" SLA's --- this is a key point!
- SLAs should include commitments for:
 - 1. On-time delivery of services
 - 2. Up-time on the entire service
 - 3. Repair times
- Service delivery should not be like the satellite TV model, which is simply shipping an antenna with self-install instructions and a customer service number. Broadband is a two-way and interactive experience and should therefore be supported at the same levels of quality as broadband subscribers in major metropolitan areas.
- Professional installation and in-market support for network performance issues should be an applicant qualifier.
- 3. Affordability Quintillion has promised to be transparent with our costs and resulting prices throughout the entire process.
- Affordability is the desired outcome, but not at the expense of quality and service performance.
- Oversubscription rates of the service should be disclosed. Many applicants will attempt to economize and reduce costs by overleveraging middle mile capacity.
- Cost and price transparency is preferable to price regulation. Regulations are great when the services are homogeneous, which service in Alaska is the furthest thing from. Providers should justify prices based on initial cost, maintenance cost, upgrade costs, and reasonable profit margins.





Quintillion is committed to collaborating with Tribes, Tribal consortiums, and other network operators. Not all Tribes have network construction and operations expertise, nor a core network interconnected with the internet. Conversely, service providers need tribes and local cooperation to manage successful network expansions. Unilateral and self-serving efforts will fail 100% of the time.

In closing, Quintillion respectfully advocates for more industry representation on the Advisory Board in HB 363. Since only one seat on that board is currently allocated for the broadband industry, we are concerned with the lack of input from the various providers that will be needed to close the digital divide. It is clearly a challenge to connect all rural Alaskans to broadband. There is no single middle mile technology that will be superior in all instances. We need all available tools in the toolkit – fiber, microwave, and satellite. Quintillion will continue working to deliver affordable, high-quality service to Alaskans through all of these technologies. When it comes to Alaska, not any one particular technology will solve the digital divide. Therefore, every single one of the various technologies needs a seat at the table.

Respectfully,
Mac McHale
Michael McHale
Chief Revenue officer
Quintillion

Signature: Michael McHale

Michael McHale (Apr 14, 2022 15 23 ANDT)

Email: mmchale@quintillionglobal.com



From:

Mike Husa <

Sent:

Friday, April 15, 2022 10:23 AM

To:

Rep. Neal Foster; Rep. Kelly Merrick; Rep. Daniel Ortiz; Rep. Adam Wool; Rep. Bryce Edgmon; Rep.

Andy Josephson; Rep. Sara Rasmussen; Rep. Steve Thompson; Rep. Bart LeBon; Rep. Ben Carpenter;

Rep. DeLena Johnson

Subject:

HB 363

Representatives,

I am writing to you in support of HB363. Rural areas need dependable high speed Internet at affordable rates, but we also need sufficient data capacity to be able to actually use the Internet. GCI serves much of our region for Internet access, the costs for basic plans are high and have limited data caps, while they will tell you that you have unlimited access at reduced speeds it is so slow that even the gci.com page will take minutes to load in Bethel. While I applaud you for taking on this bill and urge you to pass it, please expand it to also include sufficient data caps to make it usable. During Covid-19 closures we lost many of our GED students who did not have the ability to access an online program that we use to assist them in increasing their skills to be able to pass the GED exams. Our region's schools were closed to any outside activity even if they reopened for their K-12 population to return. While the GED now has a remote testing option both the speed and data limits will not allow our students based in the villages to test remotely unless they are at one of the schools in rural Alaska.

I also serve as a LKSD School Board member and while our schools were in remote learning mode much of it was done by hand delivering materials to student's homes, as the Internet was not available to them. GCI worked with LKSD to build an Intranet to try and address this issue but it largely was not a success.

Dependable high speed Internet, with sufficient data capacity will do a great deal to increase learning opportunities as well as employment opportunities for residents of Rural Alaska.

Thank you for your time.

Mike Husa ABE Instructor Yuut Elitnaurviat

PH: 907-543-095



TESTIMONY: SHAWN WILLIAMS ON APRIL 15, 2022, 1:30 PM AK ALASKA HOUSE FINANCE COMMITTEE HEARING ON HB 363

Good afternoon Co-chair Merrick, and committee members. Thank you for the opportunity to speak today. My name is Shawn Williams and I'm the Vice President of Government Affairs and Strategy at Pacific Dataport.

We are the locally-owned satellite middle mile provider – located in Anchorage – launching two satellites over 100% of Alaska and connecting more than 110,000 rural Alaskans with broadband. Our first of two satellites goes up in August and the second goes up in 2024. We've done this entirely with private funds to the tune of about \$50M, and without one dollar of subsidy funding.

I want to point out that the Alaska Telecom Association, who clearly has played a major role in promoting this legislation, does not represent our company, Tribes, Tribal consortiums, middle mile providers or satellite providers. That said, I would like to take this time to share our recommendations that I believe would help make this bill stronger for rural Alaskans.

One – REMOVE the term "in-state". It's protectionist and only serves to limit the competition (tribes, tribal consortiums) who may deploy a network in Alaska. I'll concur with Mayor Springer that this term or phrase does not appear anywhere in IIJA.

Two – ADD the composition of the broadband office IN THE BILL and give it a mission. The NTIA has already stated the broadband office MUST provide a plan to serve every single resident to qualify for any funds.

Three – ADD language that recognizes IIJA funding regulations and ensures this bill will not conflict with IIJA language that's still developing in DC.

And Four – ADD legislative oversight of all awards. A summary could be submitted to the Alaska Legislature on December 31, then reviewed and approved during the following legislative session.

Finally, I'd like to suggest an entirely separate option ... A CS of this bill could be MUCH simpler. Strictly address broadband office composition, mission, and function. Everything else – like technical details, definitions, and the parity fund – could be scratched.

Pacific Dataport appreciates that this bill prioritizes the unserved and works to organize Alaska's broadband funding. We encourage the spirit of competition and anything that promotes broadband expansion, efficiency, lower prices, better service, competition, and a free market.

I would like to thank this committee and our bill sponsor for addressing such a major challenge for Alaska. I look forward to helping where I can. Thank you for your time.

Shawn Williams / swilliams@pacificdataport.com



March 8, 2022

The Honorable Bryce Edgmon Alaska State Capitol Room 410 Juneau AK, 99801

RE: HB363 Broadband, Office, Grants, Parity Dear Representative Edgmon,

MTA is supportive of the recently introduced, HB363 "An Act establishing the office of broadband; creating the broadband adjustment parity fund; establishing the Statewide Advisory Board; and providing for an effective date."

MTA is a leading broadband provider, empowering its member-owners and patrons to live a connected life. We have been delivering advanced communication services to Southcentral Alaska residents since 1953.

HB363 adopts the recommendations of the Governor's Task Force on Broadband to support access to improved broadband services for Alaskans. Establishing the Office of Broadband in the Department of Commerce, Community, and Economic Development will enable the State of Alaska to participate in the programs created by the Infrastructure, Investment, and Jobs Act of 2021 and access an unprecedented level of funding dedicated to extending broadband service throughout Alaska.

MTA is focused on investing in Alaska's broadband infrastructure and is eager to accelerate that work through the new infrastructure programs being implemented.

We fully support HB363 as it provides important tools to support implementation of these programs and will result in increased access to broadband and its benefits for our member-owners

As always, thank you for your leadership and dedication to the important deployment of broadband services for Alaskans.

Kind regards,

Michael C. Burke

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Martin Milage of Minte E.O. Gur 26 Minte. Maria 99732 pd (907794-7112

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March 17, 2022

The Honorable Bryce Edgmon Alaska State Capitol, Rm. 410 Juneau, AK 99801

Re: H8363 Broadband Office

Dear Representative Edgmon:

This letter is in support of HB363 and the creation of an Alaska Broadband Office and advisory board. Increased reliable, affordable broadband accessibility for all Alaskans is a necessity. Assuring that our unserved and underserved rural areas are not left out of this once in a generation opportunity is also critical.

Thank you for incorporating the majority of the recommendation of the Governor's Task Force on Broadband. The Broadband task force recommended setting up regional advisory boards. We recommend that the nine-member statewide advisory board recommended in the bill include equal representation by rural and urban users and require all regions be represented. By maintaining the goal of connecting ALL Alaskans, our state will reap the greatest benefits.

Bridging the digital divide and providing digital equity are key. The addition of the Broadband Parity Adjustment Fund will help make the service affordable, and we welcome this addition to the HB363.

Thank you for your support of bridging the digital divide and bringing a coordinated statewide effort to delivering high speed broadband to all.

Sincerely

Chief Joe Alexander Native Village of Minto

"In the old days everybody belonged to a clan. In Minto there are four clans:

Caribou — (Bedzesh Ti Xwi'ana) Fiskeni (Ch'achabra) Palat — (Tairkeu) Middle (Tonkin (bekel bas)" - Chief Peter John

Council Members: IstChief Joeseph Alexander, 2nd Chief Johnathan David, Sec./Tres. Lori Baker,

Member Lindberg Charlie, Member Ellicen Charlie



Alaska Telecom Association 201 E 56th Avenue, Suite 114 Anchorage, AK 99518 (907) 563-4000 www.alaskatel.org

March 3, 2022

The Honorable Bryce Edgmon Alaska State Capitol Room 410 Juneau AK, 99801

RE: HB363 Broadband, Office, Grants, Parity

Dear Representative Edgmon,

Thank you for introducing HB363, "An Act establishing the office of broadband; creating the broadband adjustment parity fund; establishing the Statewide Advisory Board; and providing for an effective date."

Alaska Telecom Association (ATA) is the statewide association of telecommunications companies. Our members provide Alaskans with advanced telecommunications services including broadband, landline, and wireless services. Since 2017 ATA's members have invested over \$1 billion building Alaska's networks and continue working to connect all Alaskans.

We support HB363. The bill adopts the recommendations of the Governor's Task Force on Broadband to support access to improved broadband services for Alaskans. Establishing the Office of Broadband in the Department of Commerce, Community, and Economic Development will enable the State of Alaska to participate in the programs created by the Infrastructure, Investment, and jobs Act of 2021 and access an unprecedented level of funding dedicated to extending broadband service throughout Alaska. Establishing the broadband parity adjustment will help support expanded access to broadband for Alaskans. And the new Statewide Broadband Advisory Board will provide the Office of Broadband with important input from a diverse stakeholder group, helping the Office to achieve its goal to expand broadband access for Alaskans.

ATA's members continue to invest in Alaska's broadband infrastructure and are eager to accelerate that work through the new infrastructure programs being implemented. HB363 provides important tools to support implementation of these programs and will result in increased access to broadband and all its benefits for Alaskans.

Thank you for your leadership and commitment to advancing broadband services for Alaskans. We look forward to supporting your office and HB363.

Sincerely,

Christine O'Connor Executive Director



Member of the Notice at League of Oit es and the National Association of Counties

The Honorable Bryce Edgmon Alaska State Legislature 120 4th St., State Capitol Juneau, AK 99801

RE: In support of HB363

Dear Representative Edgmon,

Thank you for your sponsorship of H8363, establishing the office of broadband, creating the broadband parity adjustment fund, and establishing the Statewide Broadband Advisory Board.

Having served on the Governor's Task Force on Broadband this last year, alongside leaders from around the state, I know how timely and important this issue is. The Task Force put a great deal of effort into its work and final report; it is gratifying to see it reflected in this piece of legislation. I was personally involved in the policy working group and the three actions of HB363 encapsulates the vast majority of this work — statewide coordination, meaningful input into decision-making processes, and methods to address both infrastructure buildout and affordability for Alaskans.

AML supports this legislation as drafted. It provides sufficient guidance to the State and necessary authorities without overcomplicating the process with minutiae. We recognize that this legislation is a critical and necessary first step along a long road to be able to fully meet Alaska's broadband needs. In future years there will need to be additional actions, potentially, but these will emerge once the State has sufficient building blocks in place, and as federal investment becomes clearer. The list of recommendations from the Task Force should be considered part of a roadmap, which HB363 enables. We don't have to solve for everything right away, but be patient and responsive as needs and opportunity arise.

I have attached a summary of observations that AML produced at the conclusion of the Task Force's work. I think you'll find that they mirror the sentiment expressed thus far, and that HB363 provides the tools with which the State can serve to deliver beneficial outcomes to Alaskans for years to come.

Respectfully,

Nils Andreassen

Executive Director

Summary from AML's Perspective

Assessing New Technologies

We heard from stakeholders about the likelihood and reality that satellite technologies may provide timely broadband solutions to remote communities. LEO and GEO efforts are critical components of a broadband strategy and the State will benefit from an approach that is mindful of how and when these may be best deployed, and by whom. While this final report has tried to stay technology neutral, it has also said that fiber is a gold standard. If that's the case, then the State's approach to an infrastructure backbone should rest on a long-term effort to implement fiber. By no means does that preclude parallel efforts that addresses the immediate needs of communities, and the report's recommendations provide for ways in which both fiber and newer technologies can meet Alaska's needs. The Task Force has been cognizant of and wrestled with how to deploy limited resources, and ultimately the criteria for project development allows a wide range of choices. We expect that the State's Office of Broadband Deployment will stay fully apprised of technological advancements and can weigh those alongside the priorities outlined herein.

Timing

Part of the conflict in decision-making, relative to fiber and LEO/GEO, is timing. Alaskans are right to want immediate relief from poor broadband service and high costs. Building out a fiber backbone – thinking long-term — is a long-term prospect. This strategy is one that then allows future investment to be maximized; it's a process that builds on project efforts sequentially, lowering costs and improving quality along the way. The time that takes, however, means that communities who don't benefit immediately may feel left behind or out. That's an important reason the Task Force recommended a Parity Adjustment, such that relief still comes to those in need. The State's aren't the only efforts that will make a difference — making a difference will mean a team approach.

Enhancing Partnership and Engagement

The Task Force has recommended the implementation of an Office of Broadband Deployment, and the creation of Regional Broadband Advisory Committees. There are a number of things to note that are worth consideration. The Task Force has assigned to the Office a very long list of responsibilities — it is not imagined that all of these are taken up at once, nor that they can all be accomplished immediately. In fact, the Office will need to take its time to establish its capacity, capability, and competency.

Therefore, it likely requires a stepwise approach that means the Office can tackle the immediate and necessary while building toward the long-term and sustainable. Regional Broadband Advisory Committees are the Task Force's answer to the inclusivity necessary and requested by Alaskans. This is where local governments and Tribes have a seat at the table to be part of broadband deployment in Alaska. These are necessary and integral mechanisms for ensuring that partnership occurs. We expect that by implementing both a strong State Office dedicated to broadband oversight, and regional planning bodies, the State will be in a position

to address challenges on the front-end of a project and strategy, rather than face hurdles later on.

Pricing and Affordability

The Task Force included affordability as a criteria and goal of State broadband deployment – it's a driving factor in both the quality of service that Alaskans deserve and a springboard to economic development. The step not taken was to recommend specific ways to address pricing that consumers experience. There were a number of proposals considered, from price gouging legislation to a net profits tax, to changes within the Regulatory Council of Alaska. Ultimately, these were felt outside the scope of the Task Force and will need to be addressed by legislative or regulatory action. The considerations, though, or calls for improvement, are important to highlight. Many have argued that the scale of public investment into what will be private infrastructure should be coupled with public oversight over the difference that makes to the consumer. The way in which the Task Force addressed this was through the capacity and responsibilities of the Office of Broadband Deployment. That Office will have 1) data and 2) measurable outcomes from its project deployment, vetting of project applications, and overall mapping and information acquisition. In many ways, the State should have insight into price and affordability in ways that it hasn't before. This may foster an opportunity for different policy decisions in the future. Ultimately, the Task Force's recommendations provide a strong platform for oversight in the public interest. One of the fundamental principles with which the Task Force has approached broadband deployment is equity, and efforts by the State should and will include that as a priority.

Accessibility

With broadband speeds, affordability, and reliability all being critical aspects of building out Alaska's broadband infrastructure, equitable access to broadband once it is available in a given location is often overlooked. This can be thought of at both a macro and micro level communities just beyond the build out, or neighborhoods on the outskirts or even within densely populated areas; availability of broadband at speeds and a price that are meaningful and affordable to consumers cannot be left out of State planning efforts and action. Impediments to quality service can be both circumstantial – tress on a neighbor's property – or systemic - inadequate resources and competing priorities result in delays to build out. Alaskans experience this in different ways, where during COVID-19 pandemic schools were closed and internet access was available in the parking lot, or in daily life for remote schools, businesses, tribes, local governments, and health clinics, where participation in activities is hampered by access that is out of reach. Alaska's broadband strategy includes, and the Task Force wants to highlight, pathways to addressing this patchwork of coverage. Equity in broadband services being offered will ensure that Alaska has villages, towns and neighborhoods similar to that of their peers. An equitable strategy will be Alaska-driven and in the public interest, leveraging federal investment and private partnerships but maintaining local control, the State's priorities, and the public's well-being. Broadband access is an important part of modern Alaska's infrastructure needs.



March 2, 2022

The Honorable Bryce Edgmon Alaska State Capitol 120 4th St State Capitol Juneau, Alaska 99801

RE: House Bill 363 - Broadband, Office, Grants, Parity

Dear Representative Edgmon,

Thank you for introducing House Bill 363 "An Act establishing the office of broadband; creating the broadband adjustment parity fund; establishing the Statewide Advisory Board; and providing for an effective date."

As one of Alaska's largest broadband and managed IT service providers with a 120+ year history serving Alaskans, we are ready to support the State in delivering affordable, reliable, high-speed broadband to all.

We support House Bill 363 creating the Office of Broadband in the Department of Commerce, Community, and Economic Development (DCCED) to accept and distribute federal broadband infrastructure dollars in the following order of priority: unserved areas, underserved areas, and anchor institutions.

House Bill 363 follows guidelines set forth in both the Infrastructure Investment and Jobs Act and Governor Dunlevy's Task Force on Broadband recommendations. It is a critical step the State must take before it is eligible for federal Broadband Equity, Access, and Deployment funding.

We support making broadband affordable by establishing the Broadband Parity Adjustment Fund and ensuring the State can take full advantage of federal programs that can benefit Alaskans. We are glad that the newly established federal Affordable Broadband Connectivity program will support eligible Alaska households with a bill credit of up to \$75/month for broadband service. The Broadband Parity Adjustment Fund may be able to build on this existing federal program, rather than replace it, since the goals are so similar. For example, The Broadband Parity Adjustment Fund could provide an additional benefit for Alaskans who need a greater subsidy than the federal program provides. It could also provide support to enroll Alaskans in the federal program or administer grants to non-profits to assist in enrollments. A primary goal of the state broadband office could be to maximize federal spending on broadband affordability in Alaska by ensuring that all eligible Alaskans are able to participate in the Affordable Connectivity Program. We are working on refining these ideas and will follow up shortly with some specific suggestions.

We appreciate your leadership and know that by working together we can connect more Alaskans with high-speed internet than ever before.

Sincerely,

Heather Cavanaugh

Heather Cavanaugh

Senior Director, External Affairs and Corporate Communication



March 7, 2022

The Honorable Bryce Edgmon Alaska State Capitol 120 4th Street, Room 410 Juneau, Alaska 99801

RE: House Bill 363 - Broadband, Office, Grants, Parity

Dear Representative Edgmon:

We appreciate your leadership in sponsoring House Bill 363 "Broadband: Office, Grants, Parity" based on the hard work of Governor Dunleavy's Broadband Task Force this past summer. The task force spent hundreds of hours of hearing from qualified, engaged Alaskans representing a broad range of stakeholders and communities. We appreciate your efforts to amplify those voices and carrying this important work forward.

GCI has been delivering connectivity to Alaskans for more than 40 years and we are well-versed in the challenges of providing broadband service to rural communities and in Arctic environments. To expand Alaska's broadband infrastructure and close the digital divide, we concur with the framework of this legislation: standing up an Office of Broadband Deployment in the Department of Commerce, Community, and Regional Development; targeting unserved and underserved communities; prioritizing local workforce development; maximizing federal partnerships by establishing a federal grant-matching fund, streamlining state permitting; and establishing a broadband parity adjustment fund.

As you stated in the February 1st House Finance hearing, this is a once-in-a-generation opportunity for Alaska. It cannot be overstated how important it is that we follow the federal guidelines set forth in the Bipartisan Infrastructure Law to maximize Alaska's eligibility for Broadband Equity, Access & Deployment funds. HB 363 will help ensure this is an achievable goal.

Again, thank you for your initiative on this legislation to help bring reliable, high-speed, affordable broadband to every Alaskan.

Sincerely,

Rebecca Windt

Digitally signed by Rebecca Windt

Pearson

Pearson

Date: 2022.03.07 17:02:08 -09'00'

Rebecca Windt Pearson

Senior Vice President, Law and Corporate Advocacy, and General Counsel



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March 8, 2022

House Labor & Commerce Committee Alaska Legislature Juneau, AK 99801

RE: HB363 Support

Dear Rep Fields, Spohnholz, Schrage, Nelson, Snyder, Kaufman, McCarty;

AARP Alaska supports HB363 to authorize the implementation of the architecture for successful universal Broadband deployment for all Alaskans, as proposed by the Governor's Task Force on Broadband

AARP is a nonpartisan, nonprofit organization that works on issues that matter to elders and their families, including caregiving, aging in place, and access to affordable high-speed internet service, also known as broadband.

Alaska has the fastest growing senior population in the country and most of us want to stay in Alaska as we age. Ubiquitous, affordable, adequate high-speed internet access can help make this possible, benefiting all segments of our society including seniors.

For elders, access to broadband makes aging in place more possible by providing access to telehealth, civic engagement, entrepreneurism, teleworking, connections with friends and family, educational opportunities, and access to vital assistance programs. Aging in place is good for elders, families, communities, and for the State of Alaska, as it reduces the cost of long-term care to the State budget dramatically.

For our elders, poor or no broadband access and a lack of affordability not only limits access to essential public health info, social services, telehealth, and apps that manage chronic conditions and support caregivers, but it also leads to risk of social isolation, which has been linked to negative health outcomes, reduced quality of life and premature death.

AARP Alaska supports HB363 to establish the Alaska Broadband Office in the Department of Commerce and Community Development, create the Broadband Parity Adjustment Fund, and establish the Statewide Broadband Advisory Board to increase access, affordability to high-speed internet and digital equity for older Alaskans. We would encourage you to ensure that the Advisory Boards include consumer representatives who can speak to the interests of a diverse base of consumers, including older consumers.

Respectfully, Marge Stoneking Advocacy Director, AARP Alaska



MEMBERSHIP RESOLUTION FY22-04

A RESOLUTION BY THE SOUTHWEST ALASKA MUNICIPAL CONFERENCE MEMBERSHIP SUPPORTING HB 363 "AN ACT ESTABLISHING THE OFFICE OF BROADBAND; CREATING THE BROADBAND PARITY ADJUSTMENT FUND AND ESTABLISHING THE STATEWIDE BROADBAND ADVISORY BOARD"

WHEREAS, the number of communities in our region -both unserved and underserved- by Broadband is one of the highest in the state; and

WHEREAS, there is an unprecedented level of federal funding for broadband grants in Alaska that is intended to build out modern middle and last mile infrastructure in all regions of the state; and

WHEREAS, HB 363 establishes important guidelines for Alaska to qualify for nearly two billion dollars of broadband funds, while creating parity between urban and rural Alaska customers in a manner that allows for high speed, reliable internet services to be provided in an affordable and equitable manner; and

WHEREAS, HB 363 also establishes the Broadband Parity Adjustment Fund (BPAF), which is a separate fund in the Alaska treasury, modeled after the Federal Communications Commission's (FCC) Emergency Broadband Benefit. The BPAF is created with the express purpose of offsetting consumer costs and making grants to eligible beneficiaries to improve the performance and access to services where, in many instances, it does not currently exist; and

WHEREAS, HB 363 creates the Statewide Broadband Advisory Board to provide informed recommendations on broadband policy goals and objectives. The board will act in an advisory capacity to the Broadband Office to identify project proposals and develop criteria for mapping and data collection, while striving to fulfill the long list of recommendations that emerged from the extensive work of the Governor's Task Force on Broadband; and

NOW THEREFORE BE IT RESOLVED that the Southwest Alaska Municipal Conference Membership strongly supports the passage of HB 363 in this Legislative session to start the process of bringing middle and final mile broadband infrastructure to rural Alaska swiftly and efficiently.

PASSED AND ADOPTED by the Southwest Alaska Municipal Conference Membership this 5th day of March 2022.

Economic development and advocacy for Southwest Alaska
Economic Development District (EDD) and Alaska Regional Development Organization (ARDOR)

IN WITNESS THERETO:

Paul Gronholdt, SWAMC Board President

Para R. Grandalet

Shirley Marquardt, SWAMC Executive Director

PASSED AND ADOPTED by the Southwest Alaska Municipal Conference Membership this 5th day of March 2021.

IN WITNESS THERETO:

President

Marquardt, SWAMC Executive Director

Mary SWAMC Swain, Board Shirley



March 16, 2022

HB 363

Dear Committee Members,

Over the last 40 years, the telecommunications industry in Alaska has been clearly defined – it's an expensive market to enter and the incumbent telecoms have a very strong lobby. Eventually, broadband became a second revenue stream for the telecoms. As small-town entrepreneurs, satellite middle mile providers and (recently) Tribes started offering more affordable broadband in their communities, efforts were focused on controlling federal funds and policymaking which favors the incumbents. Ultimately, they've been very successful in limiting market entry (competition) and strengthening their regional monopoly holdings in rural Alaska. It's worth noting, the Alaska Telecom Association (ATA) does not represent these groups.

Today, we are thankful for the committee process and the opportunity to offer a non-ATA voice. These are our suggested amendments:

ENCOURAGE COMPETITION

- Remove subjective wording that limits a Tribe, Tribal consortium, or ISP from being an eligible
 entity: Page 1, Line 13 "make grants to eligible grantees and prioritize grants to grantees with instate experience, qualifications, and expertise needed to deploy, operate, repair, and maintain
 broadband infrastructure:"
- Remove subjective wording that limits technology: Page 1, Line 14 "latency"; Page 3, Line 7 and Page 3, Line 11 "With a latency sufficient to support" and replace with "capable of supporting"; and Page 2, Line 2 "identify scalable and sustainable technologies that meet the needs of state residents into the future; and"
- Replace subjective wording that limits industry representation: Page 4, Line 27-28 "the broadband industry" with "two members of the broadband industry representing competing technologies"
- If a technical committee is created, add two industry seats to diversify industry representation: "two members of the broadband industry representing competing technologies"

ENCOURAGE SOUND ECONOMIC DECISIONS

Replace AS 44.33.910 (b)(2) with "develop near-term and long-term strategies for deploying
affordable broadband statewide using the following criteria: impact on consumer costs, timeline
for deployment, breadth of coverage, sustainability without further subsidy, reliability, speed, and
employing multiple technologies as required while maintaining technological neutrality and
without duplicating existing federal programs."; and add Page 2, Line 13 "that supports the nearterm and long-term strategies referenced in the AS 44.33.910(b)(2)



The Infrastructure and Investment Jobs Act defines "unserved" and "underserved", but all other rules are given great latitude at the state level. Contrary to popular belief, states now have legal room to seif-regulate broadband. The U.S. Court of Appeals for the Ninth Circuit upheld a California network neutrality law and "dismissed arguments that the California law conflicts with the federal Communications Act and that the act precludes regulation of internet access because such access is an interstate service."

Not that Pacific Dataport supports regulating broadband, but the Alaska Legislature has the right to create a state broadband office and rules that will help Alaskans address the unique needs of our state. We should do so encouraging robust competition and fiscally sound economic decisions.

I would be happy to answer any questions you may have. Thank you for your time and consideration.

Respectfully submitted,

/s/ Shawn Williams

Shawn Williams

VP of Government Affairs & Strategy
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¹ Cooley. (2022). "Ninth Circuit Opens Door to State-Level Regulation of Internet Access." Accessed 15 March 2022. https://www.cooley.com/news/insight/2022/2022-02-08-ninth-circuit-state-level-regulation-internet-access.

House Labor & Commerce Committee

HB363 Testimony

Comments by Mike Navarre, Anand Vadapalli and Diane Kaplan on 3/16/2022.

Mike Navarre:

- 1. Chairwoman Spohnholz, Chairman Fields, Committee Members.
- I'm Mike Navarre from Kenai, Alaska, and I serve on the Rasmuson Foundation Board of
 Directors. Thank you for the opportunity to appear before the House Labor &
 Commerce Committee on this important topic and opportunity.
- 3. The Rasmuson Foundation has been tracking the broadband topic and multiple funding opportunities presented by the federal programs. Like you, we recognize these programs as a once in a generation opportunity to provide ALL Alaskans the critical infrastructure necessary to fully participate in the digital world.
- 4. Access to affordable internet is an issue that impacts many of the things we work on as a Foundation, such as providing Alaskans access to high-quality healthcare, educational opportunities and jobs.
- We believe reliable, high-speed internet is the right of every Alaskan, and necessary to be an engaged citizen of our state and connected to the world.
- 6. The Foundation board has recently agreed to fund an effort to support broadband deployment in Alaska, with the goal of helping both the state and tribes maximize the opportunity, particularly rural and underserved communities where broadband is currently unavailable or not affordable.

- While there are great opportunities, there are also several challenges, including competition for technical expertise, grant writers, contractors, materials, etc.
- 8. The funding opportunities available to the State of Alaska and separately to Alaska

 Tribes cry out for a coordinated effort to assure the maximum benefit to all areas and
 citizens of Alaska.
- Our interest is to assist in these efforts in any way we can benefit Alaska. Whether
 through convening various interests, networking, coordinating or communications,
 we're here to assist your efforts to successfully provide Alaskans affordable access to
 broadband.
- 10. Next, it's my pleasure to introduce Anand Vadapalli. As the former CEO of Alaska Communications, Anand played an invaluable role in helping us strategize around how Rasmuson Foundation could help maximize this opportunity.
- 11. Anand ...

Anand's comments

- 1. ... Thank you, Mike.
- 2. I will focus my prepared remarks on the importance of the State's proposed broadband office with some recommendations on structure, governance, organization and charter for such an office.
- 3. The Broadband Equity, Access and Deployment program, also known as the BEAD program, established by the IIJA, will distribute \$42.45 billion in broadband deployment funding to states and U.S. territories, which will sub-grant funds to broadband providers to connect unserved and underserved areas. A large portion of the funds will only be

- distributed once the FCC releases final maps detailing nationwide broadband availability, expected in Fall of 2022. The State of Alaska is the eligible entity to receive funding under the BEAD program.
- As the eligible entity, the State has significant responsibilities including coordination, communication, planning, governance, and oversight.
- 5. Additionally, there are other funding opportunities including the Tribal Connectivity Grant Program and the Digital Equity Act programs that provide opportunities for a variety of other eligible entities including Tribal Nations, Alaska Native Corporations, State Agencies, Non-Profits, and other community anchor institutions. The State of Alaska will have an important leadership and coordination role with these other programs.
- 6. The responsibilities of the State of Alaska under the BEAD program and for coordination with these other programs are discharged through the creation and effective functioning of a broadband office established by the State. Such an office is crucial to the State competing effectively for the funding available under the various programs, and for the effective governance and oversight of funding as received by the State.
- 7. Further, the timeline for the investment spans several years. It is reasonable to expect that funding decisions by the relevant federal agencies will extend well into 2023. Eligible entities and sub-grantees that receive funding typically have up to four years for deployment of the approved infrastructure. Benefits to communities around Alaska will commence four to six years from today. Considering the pace of technology innovation, it's reasonable to expect that there will be meaningful technology developments in

- broadband during this period, necessitating continued planning for the State's broadband infrastructure and ensuring that Alaskans continue to benefit from this foundational technology for the long term.
- 8. The Committee should take a long-term perspective in establishing the structure, governance, organization and charter of the State's broadband office to ensure policy and operational continuity spanning changes in both Administration and Legislature that are bound to occur over this long period of time.
- 9. The Foundation has had the benefit of reviewing best practices across various States.
 We highlight certain common components of successful state broadband programs as below:
 - a. Strong Leadership from governors, legislators, and agency heads. If the governor's office is focused on broadband, it will bring more attention to the issue. Legislative champions can help keep the topic at the forefront in the LegIslature, introduce measures, and educate their peers.
 - b. Dedicated staff who are focused on broadband and can develop expertise, creating accountability and responsibility, and providing stakeholders with a point of contact.
 - c. Visible and responsive broadband directors and staff who attend meetings and events around the state, including informational sessions about the state's grant program, broadband committee meetings, and ribbon cuttings or check presentations for grant projects.

- d. Connectors or people who can build strong relationships with multiple stakeholder groups and are viewed by them as a trusted partner. They provide a neutral voice when educating policymakers and community leaders and become a reliable resource for information on broadband. As a result, they often play a central role in facilitating coordination and building partnerships to advance broadband projects and policy.
- 10. The Foundation proposes that the State Broadband Office be stood up with urgency, with governance membership of such an Office appointed by both the Governor and the Legislature, reflecting the principles of shared leadership we previously articulated.
- 11. In the spirit of providing dedicated resources, we recommend that the Legislature establish and provide for an operating budget for the Broadband Office that would provide for an appropriate level of staffing and operational funding necessary for the Office to discharge its duties, including an Executive Director to serve as the administrative head of such Office. Again, based on organization structures we have reviewed for other States, we recommend that the Office have adequate resources in two distinct areas:
 - Digital Equity and Inclusion with capabilities in statewide planning, digital
 capacity and equity development, community outreach and coordination and
 communications, and
 - b. Grant Program Management with capabilities in grant management, technical planning and mapping, and sub-grantee coordination, oversight and management.

- 12. The purpose and charter for this Office can be defined to promote the deployment and use of high-speed affordable broadband in Alaska to the benefit of Alaskans. Duties could include:
 - Establishing policy frameworks by setting well-defined goals and a clear policy direction for legislative and administrative agencies.
 - Planning, assessing the adequacy of current infrastructure, and establishing a living broadband roadmap for Alaska.
 - c. Engaging a broad range of stakeholders to ensure proper input is received
 - Funding and operating approved broadband infrastructure projects and capacity building programs including training and workforce development.
 - e. Evaluating broadband investments and making sure they continue to evolve with need and technology developments over time.
- 13. The Foundation believes that this approach for creating and empowering the Alaska

 Broadband Office will create immediate near-term benefit to maximize the funding to

 Alaska, while maximizing long-term value to Alaskans from current and future
 investments in broadband.
- **14.** I now invite Diane to offer comments on how Rasmuson Foundation can contribute to this important initiative ... Diane ...

Diane's comments:

- 1. Thank you, Anand.
- 2. Chairwoman Spohnholz, Chairman Fields, Committee Members

- I'm Diane Kaplan, President and CEO of Rasmuson Foundation. I echo Mike and Anand
 in thanking you for the opportunity to appear before the House Labor & Commerce
 Committee on this important topic.
- 4. As Mike mentioned, broadband impacts many of the areas that are important to Rasmuson Foundation's mission of promoting a better life for Alaskans. We want to see this effort succeed and are prepared to offer resources – both as a convener and grantmaker - to make it happen.
- 5. Bringing people together to discuss solutions has always been a core part of our grantmaking philosophy. As we researched how we could assist with broadband, we convened numerous stakeholder groups, including tribal leaders, nonprofits, members of the telecom industry, and prominent citizens. Some of these meetings have evolved into advisory groups which could be used as a means of disseminating information and assisting with coordination.
- 6. We are also prepared to assist this effort financially. Two immediate areas we could help relate to the set-up of the state's broadband office and coordination between the state and tribes.
- 7. Over the course of our conversations, some concern was expressed that the NTIA money designated for the set-up of broadband offices may be delayed. If this is the case, and given its crucial role, we could provide resources to allow the state to start building its broadband office.
- 8. Additionally, we repeatedly heard that strong coordination between tribal broadband efforts and the state was needed for Alaska to fully take advantage of this opportunity.

- To that end, we could support the cost of a coordinator position to assist with communication and coordination.
- On a targeted basis, the Foundation can engage in grantmaking with particular emphasis
 on workforce development, technology training for organizations and residents, and
 possibly even support specific projects.
- 10. For workforce development, it will be important that Alaska both build a workforce that can install, maintain and service broadband infrastructure and provide training and resources to allow Alaskans particularly those in rural Alaska to access jobs that can be done remotely. We are prepared to support with both.
- 11. The Foundation is also building up its own resources in preparation for assisting applicants.
- 12. Based on needs expressed during our stakeholder interviews, the Foundation has identified organizations that can provide technical assistance like engineering and regulatory support along with grant writers to assist with applications, particularly for Tribal partners.
- 13. We realize this is all coming together very quickly, and perhaps greater needs will emerge, for instance, assistance with required mapping. Please know we are invested in seeing affordable and high-speed broadband deployment succeed in Alaska. We are open to discussions on how that happens.
- 14. I would like to close by talking about the cost of accessing broadband once service becomes available. We believe long-term affordability for all Alaskans will be a key measure of whether our efforts are successful. We know federal subsidies will assist in

keeping costs lower for a period of time. But beyond that, there needs to be a specific strategy. An Endowment supported by federal, state and possibly philanthropic resources is one strategy to consider.

15. Thank you again for your time today and I now turn it back over to Chairwoman Spohnholz and Chair Fields for questions.

From: Shawn Williams
To: Rep. Zack Fields

Cc: Evan Anderson: Tristan Walsh: Grace Kubitz

 Subject:
 HB 363, 370 and 371 in L&C

 Date:
 Sunday, March 6, 2022 1:41:53 PM

Attachments: image001.ong

_Alaska Tribal Spectrum to Sec. Raimondo.pdf _Chief Mike Williams to Sec. Raimondo Letter[11].pdf

H80363A - REVISED 3.4.22.docx Teresa Jacobson Opinion.pdf

WE MUST DO BETTER FOR RURAL ALASKA

Representative Fields,

For decades, we've relied on Alaska telecoms to deploy broadband to the best of their abilities with Federal funds. While they've made some progress, \$400M per year in subsidies is NOT deploying broadband fast enough.

We have got to change the way broadband is working in Alaska. This is where we are today:

- 36.3% of rural Alaskans (~100,000) still have no wired broadband (25X3 or faster) connection*
- No rural Alaska school meets the FCC's educational goals of 1 Mbps per student
- Rural Alaska schools and health clinics often pay \$40,000 to \$60,000 per month for 25X3 service (each)
- Even when a fiber runs down the middle of the road to schools and health clinics, rural Alaska residents are often passed as potential customers
- Anchorage pays ~\$.24 for a GB of data Adak pays ~\$22.22
- Off the Northern coast of Alaska, 25X3 fiber broadband service is offered at \$499 per month
- Approximately 90 rural Alaska villages are unserved (no internet) or underserved (less than 25X3)
- There is currently NO short or long-term plan to reach the remaining unserved and underserved in rural Alaska

We can do better for rural Alaskans, including our Alaska Native Villages and that's exactly what Pacific Dataport is doing. We are a middle mile provider, located in Anchorage, of new LEO and GEO HTS satellite technology that literally covers every inch of Alaska. The State of Alaska should be investing in this technology to deploy broadband statewide, like we are currently doing in Akiak. With the State of Alaska's help, Pacific Dataport could deploy middle mile to 100% of Alaska's unserved communities within 3 years. To date, we are the only organization with a plan to serve everyone quickly.

Regarding HB 363, 370 and 371, I wanted to send over an outline of challenges and solutions with each bill as it stands in House L&C (see below), including an edited version of HB 363 with comments (see attached). I've also included three letters that were recently written by Tribal leaders, which express their discontent with the expansion of broadband in Alaska.

Please let me know if I can answer any questions or help further on these bills – it would be my

pleasure. I am also available to testify as a broadband expert. Thank you.

Respectfully,

Shawn Williams



Attached:

- Alaska Tribal Spectrum Letter U.S. Secretary of Commerce Raimondo
- Chief Mike Williams Letter to U.S. Secretary of Commerce Raimondo
- Teresa Jacobson Letter to Anchorage Daily News
- HB 363 SUGGESTED EDITS

CURRENT BROADBAND BILLS IN HOUSE L&C- CHALLENGES AND SOLUTIONS

HB 363 ("An Act establishing the office of broadband; creating the broadband parity adjustment fund; establishing the Statewide Broadband Advisory Board; and providing for an effective date.") (SEE ATTACHED.)

- Challenge: Does not address Alaska's missing middle mile, which is the biggest component of setting rates at the consumer level. Mentioned by providers (2021 FCC Alaska Plan Midterm Review) and State broadband reports (2014 and 2019) as the single biggest barrier to expansion. It was also mentioned in Senate Joint Resolution 13 (SJR13) and House Joint Resolution 19 (HJR19) where both chambers address the importance of broadband and funding sources. HJR19 specifically mentions using satellite to expand broadband in Alaska. HB 363 must address funds for missing middle mile and get more rural Alaskans connected.
- 2. **Challenge**: Must be open to ALL Internet service providers (ISP's) including Tribes and Tribal consortiums, not just LEC's.
- Challenge: This looks like it was written by the telecoms. The ATA (Alaska Telecom Association) does not represent satellite, Tribes, Tribal consortiums, or middle mile providers.
- 4. Challenge: The SOA must come up with a statewide solution that provides affordable broadband (100/20) within 5 years, according to the <u>Governor's Alaska Broadband Task Force</u> Report:
 - a. This cannot happen with fiber buildout takes too long
 - b. Must be truly technology neutral or someone's getting left behind (this is required congressionally)
 - c. Only three ways to make it affordable:
 - i. More subsidies from the SOA
 - ii. More subsidies from the feds (AK telecoms already get \$400M/year)
 - iii. Utilize new satellite technologies like LEO and GEO HTS (this is what we're doing on Akiak, and the tribes want to install)

- 1. It complements current middle mile and what telecoms already have
- 2. When fiber arrives, a community disconnects the satellite and connects fiber

4. Solution:

- Focus on building affordable middle mile, not more ongoing consumer subsidies. Use these economic criteria:
 - i. Cost to the customer, time to deployment, breadth of coverage, sustainability without further subsidy

b. Promote COMPETITION

- i. No need to "prioritize" certain applicants
- ii. Include ALL telecoms and ISP's broadband providers access to funds
- iii. Do not exclude Tribes, Tribal consortiums, satellite last mile providers or satellite middle mile providers
- iv. Remove anti-satellite terms/phrases (latency, future-proof, reliability) and remain TRULY technology neutral. These terms are used to eliminate nonfiber options.
- v. Require ALL telecoms and ISP's to contribute anonymous mapping data (pricing, speeds offered and asset coverage)
- c. Finally come up with a reasonable plan to get affordable broadband to everyone in rural Alaska now. Use the new satellite technology (LEO and GEO HTS) available to establish a ubiquitous cover over Alaska and when fiber arrives, hook it up to the existing last mile in the community.
 - i. Pacific Dataport would be open to a PPP agreement where the State of Alaska invests in our second, larger satellite. The result would be lower middle mile costs and affordable broadband statewide quickly.

<u>HB 370</u> ("An Act relating to broadband; relating to the Alaska Energy Authority; and relating to the Regulatory Commission of Alaska.")

- Challenge: The term "plant or facility" and "project" clearly supports communications infrastructure, but seems to be unclear about a satellites and gateway investments with assets in space and outside Alaska.
- Solution: Modify AIDEA statute definition of "project" to include "satellite middle mile infrastructure" when it benefits all Alaskans. (AS 44.88.085)
- Solution: Modify AIDEA statute definition of "plant or facility" to allow equity investment, bond issuance, loans, and loan guarantees for "satellite middle mile infrastructure projects" with ground segment assets located in another state and satellite assets located in space. [AS-44.88.900]

HB 371 ("An Act relating to broadband; and establishing the broadband cost equalization fund.")

- Challenge: Middle mile in rural Alaska currently costs \$700 to \$6,000 per Mbps per month (wholesale). This produces consumer monthly broadband at 25/3 for \$499 (retail).
- Challenge: In order to achieve actual parity (comparable price, speeds and data caps) with Anchorage, middle mile would need to fall to \$22 per Mbps (wholesale).

Challenge: For 40,000 subscribers in rural Alaska, the total in parity funds would total at least \$700M per year.

- Solution: We do not believe this will be enough subsidy money to effectively lower consumer broadband prices in rural Alaska. It takes money from urban Alaskans and gives it to the telecoms.
- Solution: At least disburse the funds to qualifying Alaska low income consumers, in a program similar to the FCC Emergency Broadband Benefit Program.

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LinkedIn Profile



"Bringing more affordable, high-quality broadband to ALL Alaskans & Communications to the Arctic"

About Pacific Dataport Inc. - Pacific Dataport Inc. (PDI) is a satellite middle mile provider headquartered in Anchorage, Alaska. PDI was founded "by Alaskans, for Alaskans" to enable Internet access for everyone, everywhere in Alaska. PDI is focused on providing affordable middle mile and last mile broadband using the newest satellite technology from the Aurora and OneWeb Networks. PDI clients include telecoms (wired & wireless), non-profits, hospitals, clinics, schools, libraries, governments (Tribal, local, state & federal) and Alaska Native Corporations, Villages, Tribes and Tribal consortiums.

AURORA NETWORK (Alaska): PDI is currently developing the statewide Aurora Network, which consists of launching two new GEO HTS/VHTS satellites. The first is the Aurora 4A and it will be operational in Q2 2022 with ~7.5 Gbps. The second, which will be known as the Aurora IV, will be operational in Q4 2024 with 100+ Gbps. The Aurora Network will increase Alaska's middle mile broadband capacity by approximately 110 Gbps and serve ~98,000 broadband users with 25X3 service. This means more affordable, high-quality broadband for ALL Alaskans.

ONEWEB NETWORK (worldwide): PDI is the preferred provider for OneWeb capacity in Alaska and Hawaii. The OneWeb system will offer low-earth orbit (LEO) satellite service with Alaska coming online first in Q4 2021. OneWeb's LEO constellation will consist of 648 satellites, offering very low latency and fiber-like broadband service.