

## COMMENTARY

# Broadband access can help transform opportunities in rural Alaska

**AlexAnna Salmon and Pete Andrew**

The past two years have seen huge changes in our society. The pandemic has exposed weaknesses but also developed opportunities. Broadband is a key example where those with adequate connectivity had options for work, education, health care, social interaction and entertainment and those without access did not. This inequality of service has directly affected quality of life, highlighting an issue rural Alaskans have been aware of for a generation now. This realization has led to unprecedented levels of federal funding for broadband opportunities.

Rural Alaska has been promised broadband connectivity since the early 1990s. It has been a promise unfulfilled. Today, a majority of rural communities are considered unserved by FCC standards. The cost of service and monthly data limitations leave even fundamental connectivity out of reach for many Alaskans. With a multitude of funding sources available, or soon to be available, Alaska has a unique opportunity to bridge this divide now and to build the foundational

infrastructure and networks that will serve the next several generations.

In Bristol Bay, we have worked collaboratively to maximize the benefits of this opportunity. Twenty tribes, led by Igiugig Village Council with organizational help from Bristol Bay Native Association, have come together to support the Southwest Alaska Long-haul Microwave and Optical Network, or SALMONet, project. SALMONet will be owned and operated by this tribal consortium, providing for increased local employment opportunities, revenues that stay in the region, self-sufficiency and self determination.

The core technology of SALMONet is high speed, low latency, fiber optic middle mile and a Fiber-to-the-Home, or FTTH, last mile. This network will bring urban equivalent service and pricing to 20 communities. This tribal consortium has partnered with Nushagak Electric and Telephone Cooperative, aka NETC, a telecommunications service provider with 50 years of telecom experience in Bristol Bay. NETC will provide transitional technical and business support

to SALMONet while local operational and business support staff are trained. This combination of a nonprofit telecom cooperative with years of operational performance in rural Alaska, a tribal consortium that represents the communities served, and a vision for a regional network that brings better than urban broadband internet service to the underserved communities of Bristol Bay, is a powerful organization to pursue funding and meet the needs of project partners and other regional stakeholders.

SALMONet is made possible by NETC's Broadband for Northern Bristol Bay project that will extend fiber middle mile from the current terminus in Levelock to Ekwok, Aleknagik and Dillingham. This project is funded through a USDA ReConnect grant and is well underway. NETC was able to work with GCI to exchange capacity on NETC's new fiber for access to the Internet Exchange Point, or IXP, in Seattle across GCI's existing network. This capacity exchange benefits both companies, enabling NETC to provide long-term, urban equivalent

and better, broadband service to our members and low cost IXP access to SALMONet, while extending GCI's network, creating an opportunity for GCI to extend fiber to the Yukon-Kuskokwim delta.

We believe fiber infrastructure is an important consideration for building networks during this once-in-a-lifetime funding opportunity. Fiber will not only meet the current minimum FCC service standards of 100/20Mbps per second, fiber also allows for service speeds into the gigabit-per-second range. By allowing for increased access to the IXP, fiber alleviates the need for monthly data usage caps, a metric often overlooked in the pursuit of faster service.

In addition to improved and scalable capacity, fiber brings a unique opportunity to build regional networks. The design will have a minimum of 48 pairs of fiber between communities. Residential and commercial services will utilize no more than eight pairs of this capacity with each pair capable of delivering 100Gbps per second of bandwidth. That will leave 40 pairs to build gigabit-capable regional networks

dedicated to health care, education, tribal and municipal needs, cultural exchange, local sports, or any need of the region unforeseen at this time. This level of network performance, scalability and functionality is just not practical with satellite. The need for regional networking at this level is unique to Alaska. Rural communities would realize quality-of-life benefits, training for the new gig economy, work from home opportunities, and regional communication forums that have always been the promise of broadband.

These considerations are echoed by the Governor's Task Force on Broadband in its recent report. While the genesis of SALMONet predates the work of the Task Force, we concur with their conclusions. We also support HB 363, the legislation that enables a State Broadband Office. HB 363, as written, will empower this new office with the tools and scope needed to be an asset during this time of opportunity.

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