

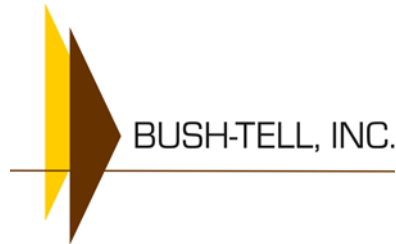


State of Broadband

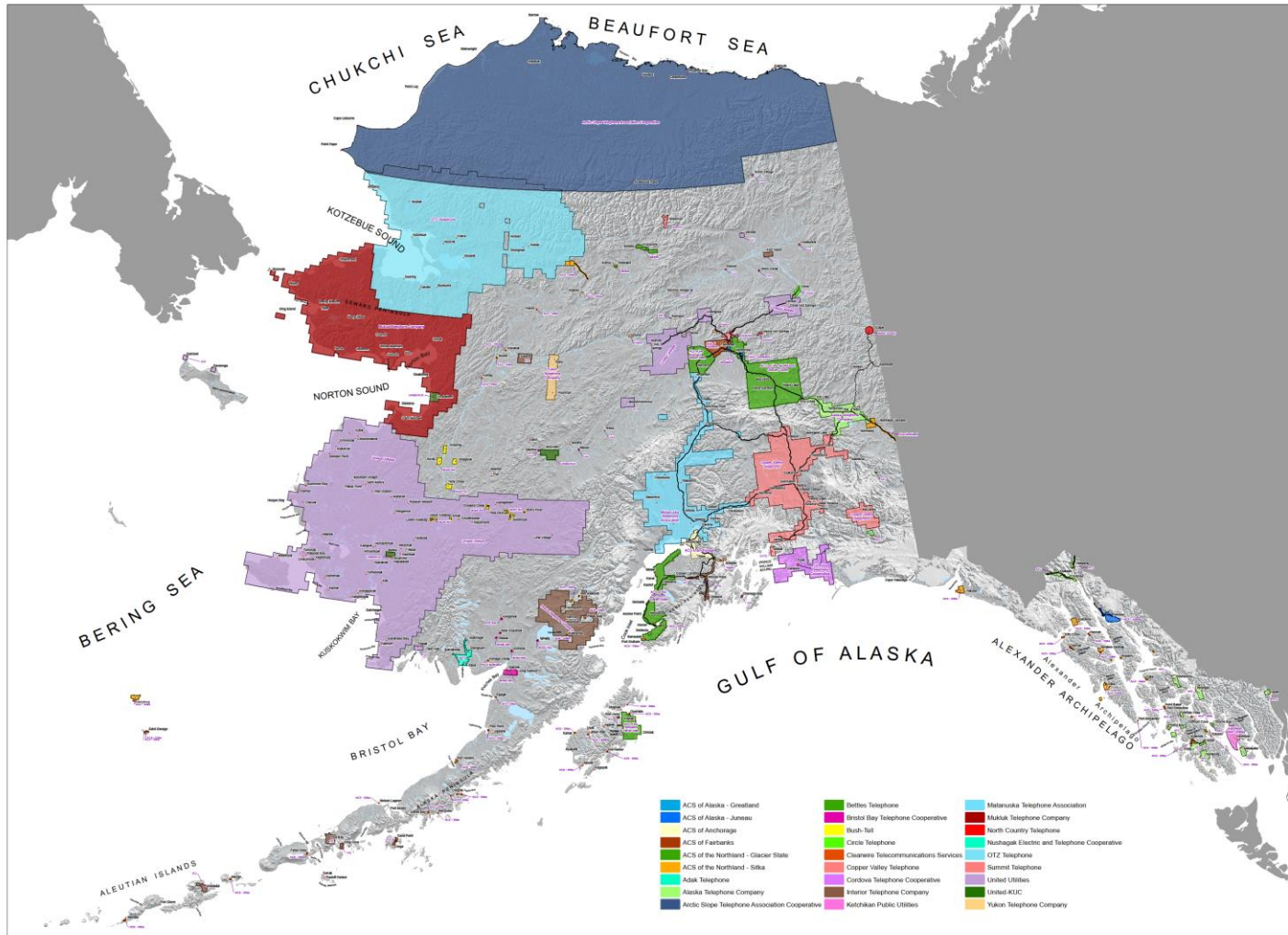
May 6, 2021
House Finance Committee



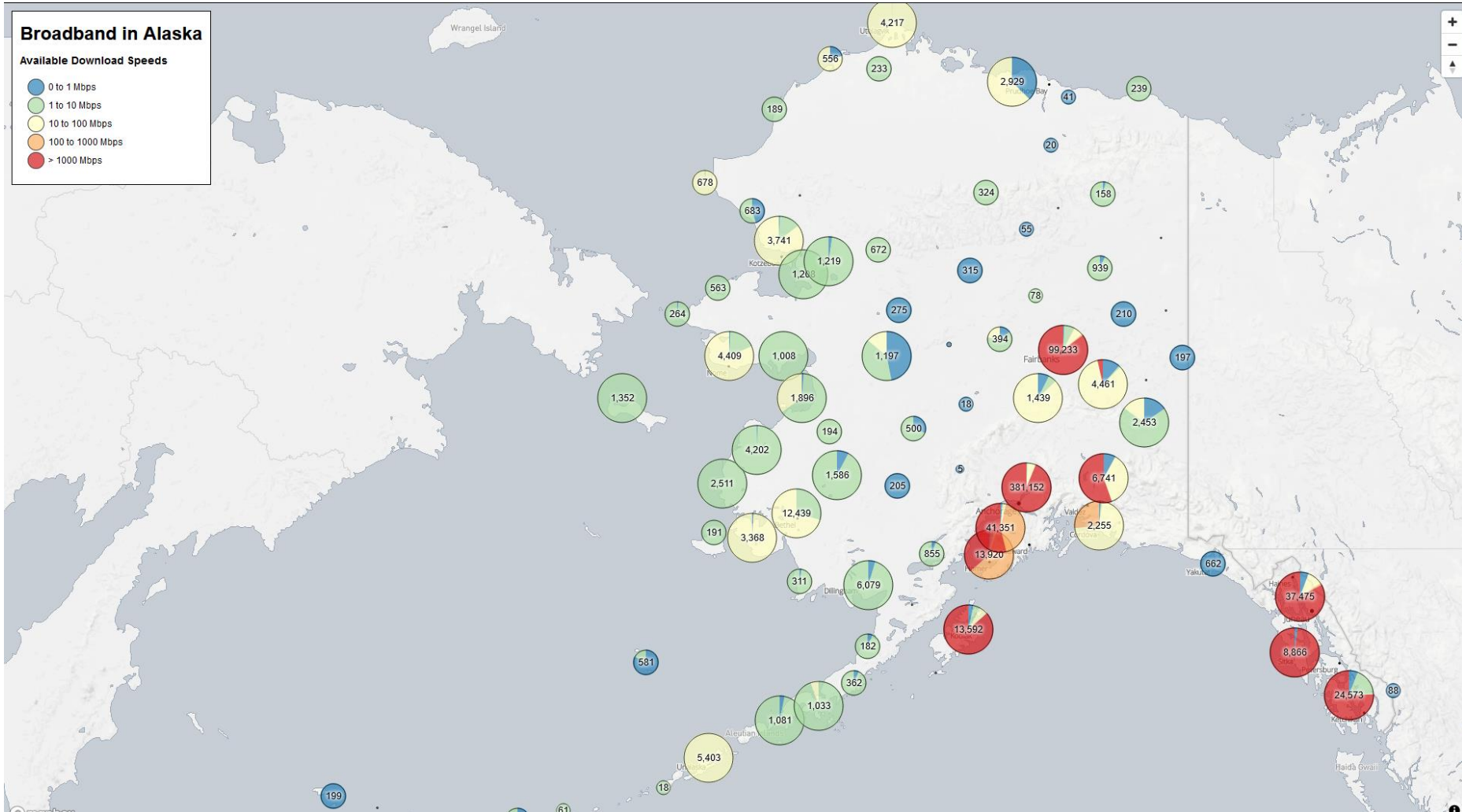
Alaska Telecom Association



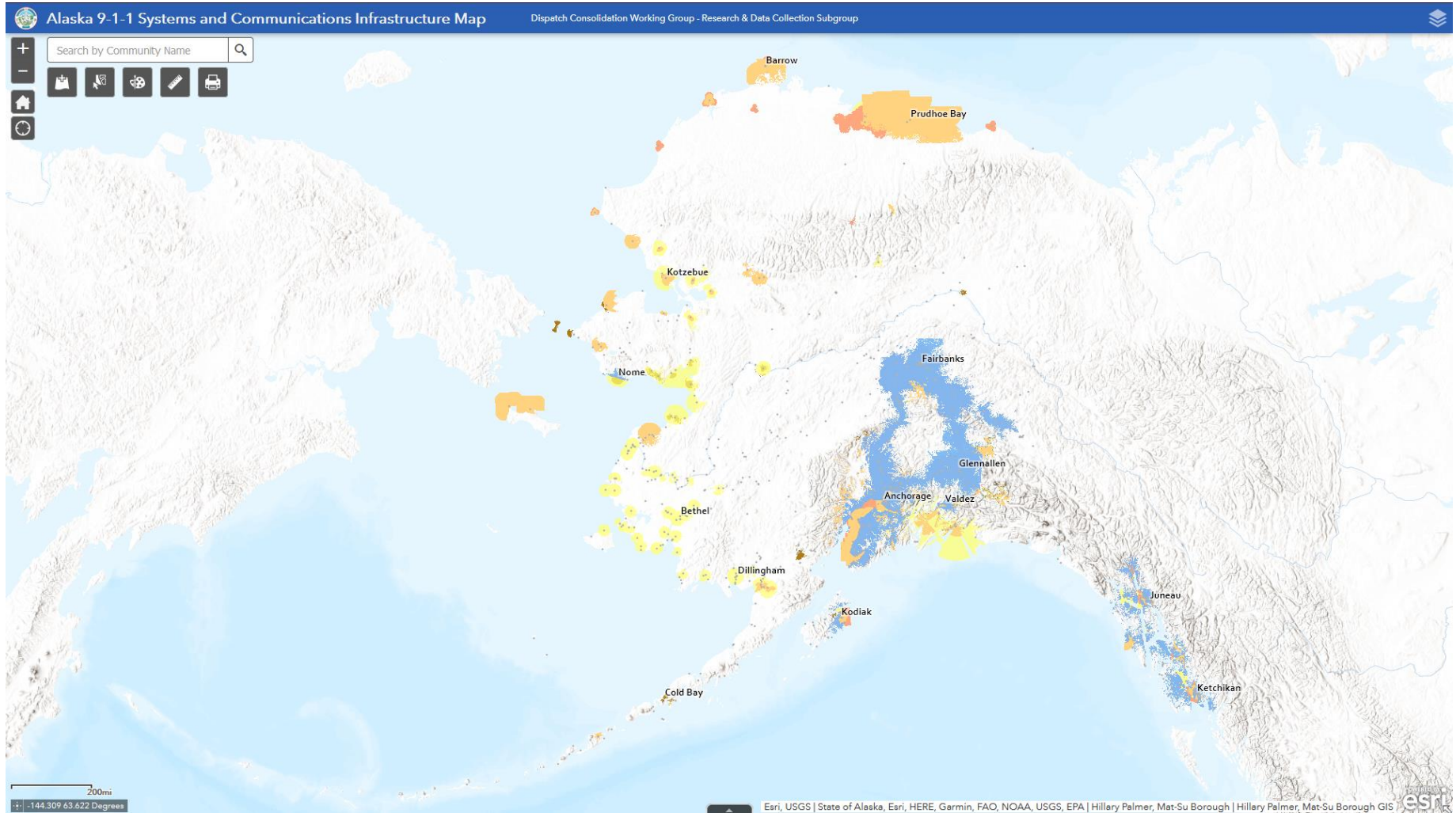
Alaska Telecom Association



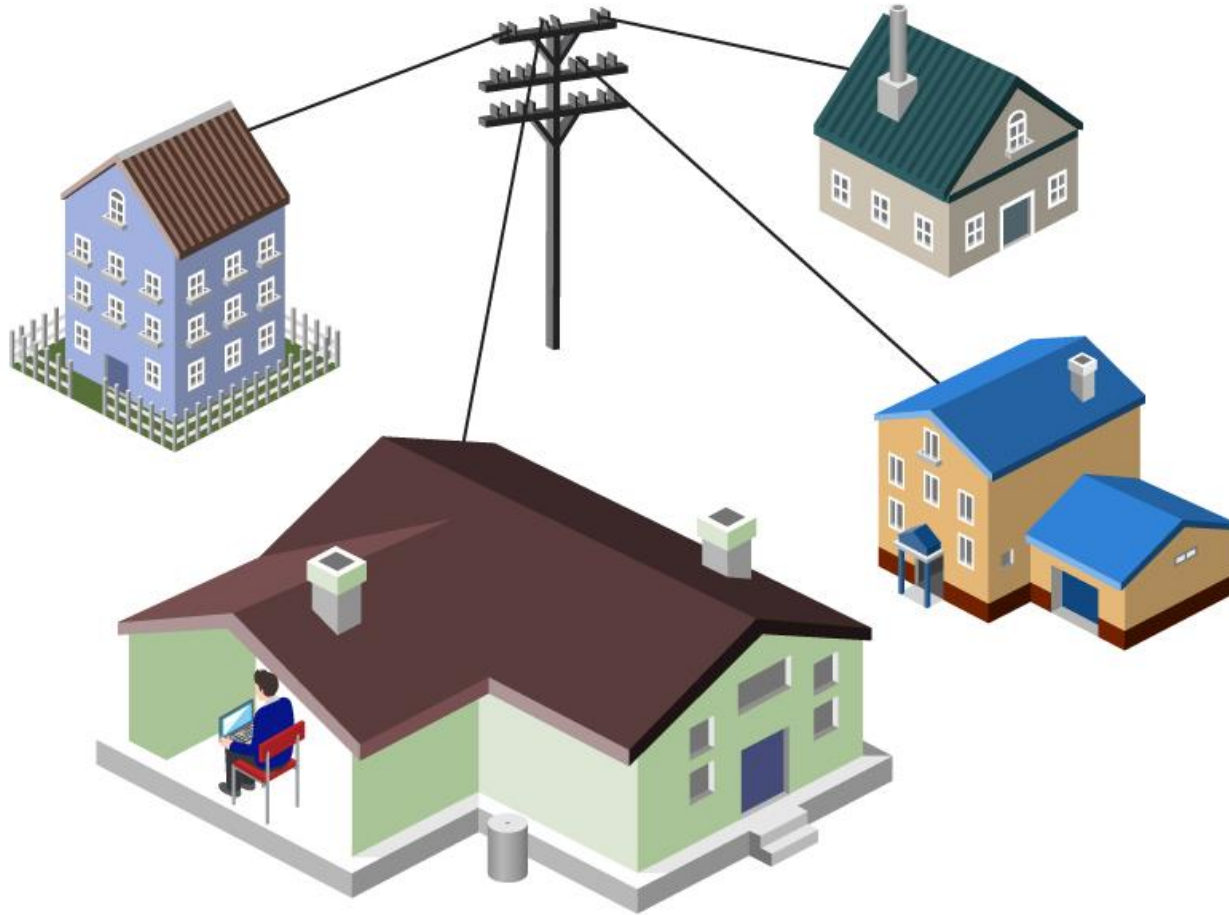
Fixed Broadband Coverage



Alaska Telecom Association



Last Mile



Last Mile Expansion

- ▶ More than 58,000 locations upgraded/new broadband by ATA members.
- ▶ Example projects:
 - ▶ Alaska Communications
 - ▶ Alaska Power & Telephone
 - ▶ Copper Valley Telecom
 - ▶ GCI



BROADBAND THAT MATTERS: TATITLEK

Copper Valley Telecom has released the fourth video in a series showcasing the importance of Broadband Internet in rural Alaska. This video highlights CVT's 2020 project to deliver 25/3 broadband connectivity to the Native village of Tattitlek. Copper Valley Telecom's broadband internet is helping rural Alaska share their culture.



Middle Mile - Fiber



Middle Mile - Microwave

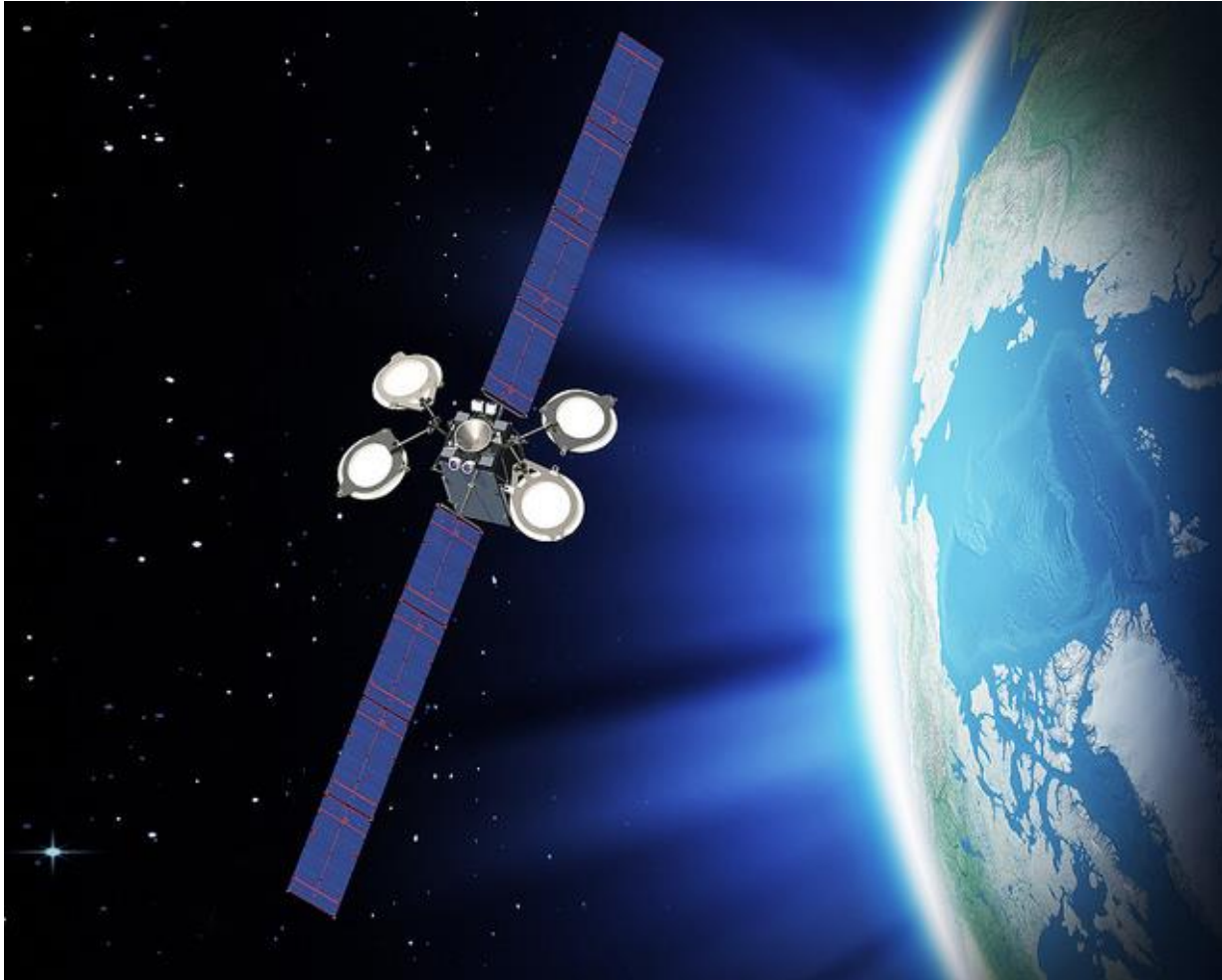


Alaska Power & Telephone Microwave Tower, Turn Mountain

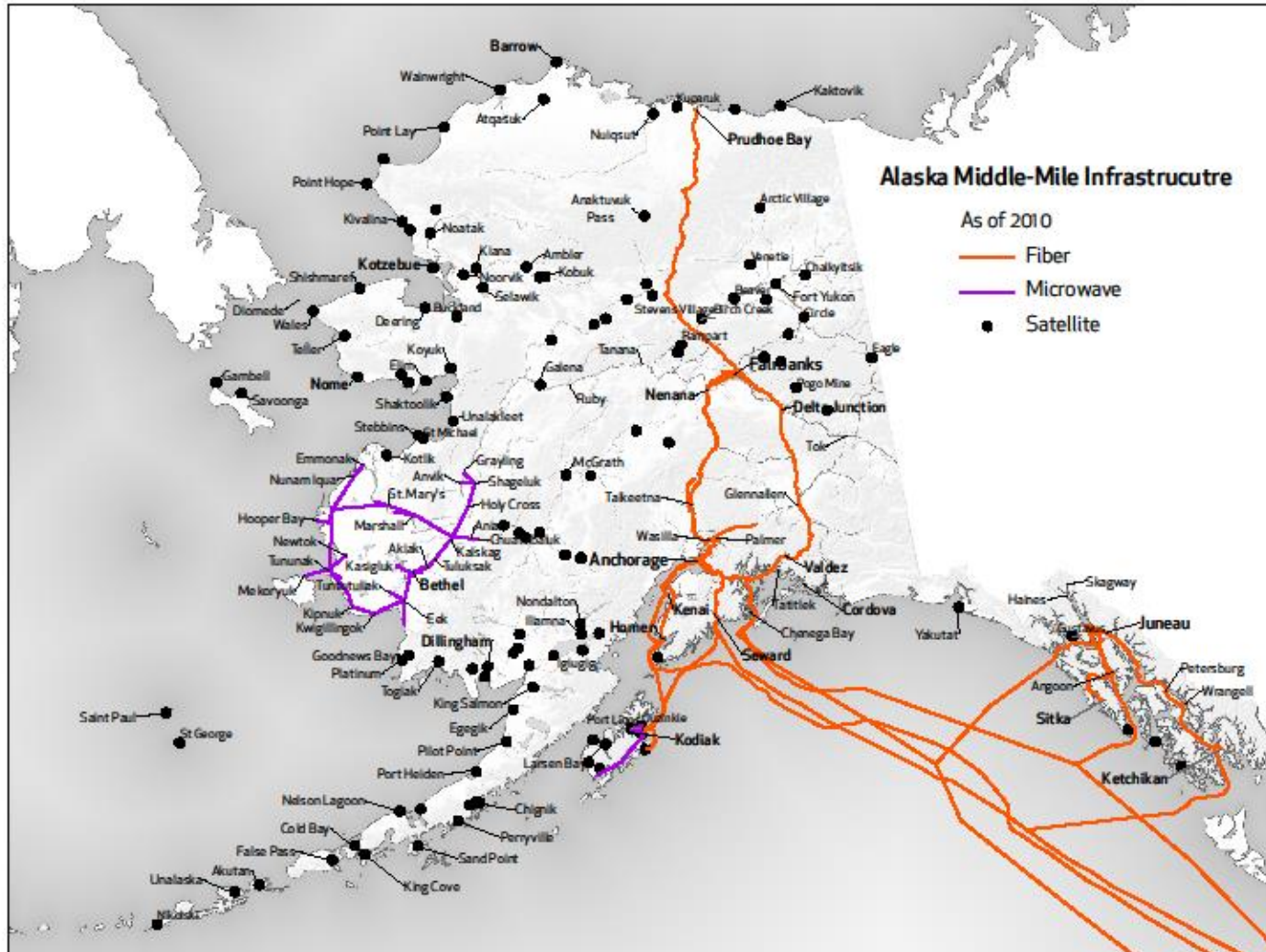


GCI TERRA Microwave Tower, Cape Nome

Middle Mile - Satellite

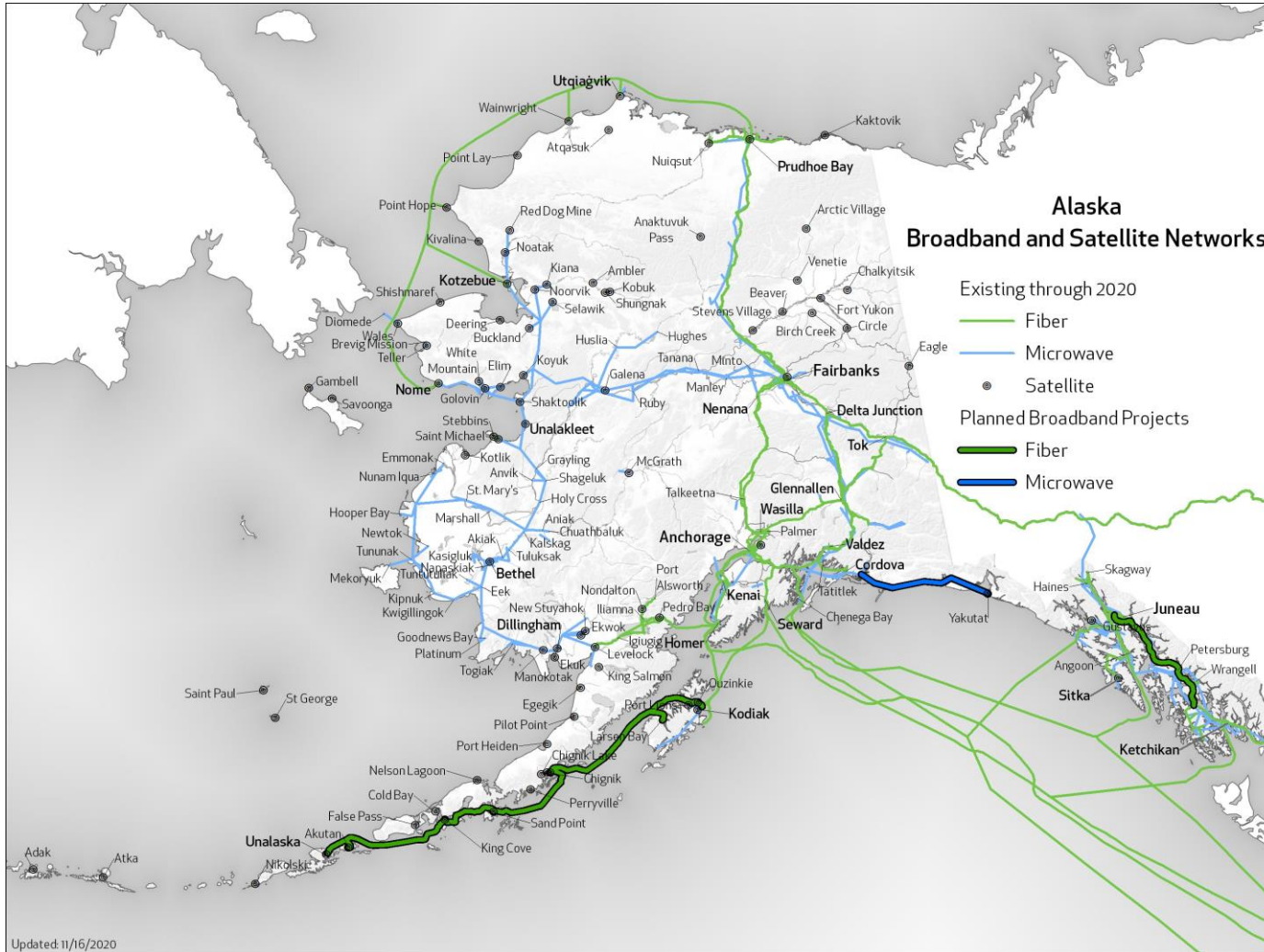


Middle Mile is Key - 2010



Date: 9/10/2015

Middle Mile is Key - 2020



New Middle Mile

- ▶ Alaska Power & Telephone
- ▶ Cordova Telecom
- ▶ GCI
- ▶ KPU Telecom
- ▶ Matanuska Telephone Association
- ▶ Nushagak Cooperative

Nushagak Cooperative announces significant increase to internet capacity for members

By TYLER THOMPSON • AUG 6, 2020

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The co-op's microwave project is complete, and it is now testing data capacity and moving members to the new packages.



Undersea cable lands at Mountain Point

KPU boosts data capacity with AK's 1st fiber-optic cable connected to Canada

By DANELLE LANDIS

Daily News Staff Writer



Above, a Westpark Electric crew moves between shore and barge on Thursday during installation of a fiber-optic cable at Mountain Point. The barge Empire 45 arrived early Thursday morning with tugs Arctic Tug and Island Tugger. Crews connected the cable from Prince Rupert to Ketchikan at a recently constructed communications hub at Mountain Point. Fiber-optic cable was unraveled from a large orange spool located at mid-ship and was fed off the stern of the barge.

Staff photos by Dustin Saltschik

At around midnight Wednesday the Ketchikan Public Utilities new undersea fiber-optic cable landed at Mountain Point via barge. The cable's installation had begun 100 miles away at Dundas Island, northwest of Prince Rupert, then was laid along the sea floor on its way to Ketchikan. The operation was delayed a few days when it had to bunker in rough weather at Dixon Entrance, but all else ran smoothly, according to KPU Telecommunications Division Manager Ed Cushing.

City of Ketchikan voters in October approved the sale of up to \$11.5 million in KPU revenue bonds for the project, and the Ketchikan City Council authorized the bond sale in April.

The contract for the project was awarded to Westpark Electric Ltd, which, according to information at westparkelectric.com, is located in Hope, British Columbia.

In a telephone interview Thursday, Cushing described the span and purpose of the operation. The cable itself is 3.5 inches in diameter, Cushing explained, and it's armored with several layers of protective coating. Its inner core is packed with 48 hollow glass fibers that are thinner than a human hair and encased in protective material.

"The purpose of the fiber is to allow a laser on both ends to send data back and forth through the hollow fiber — through the hollow glass tube — and the laser is sending data at the speed of light," Cushing said. "Incredible amounts of data."

On Thursday morning, the contractor's crew was splicing the end of the cable onto the onshore cable, housed in a concrete vault. They then planned to test the cable (it) for continuity at the end of the onshore cable, and if everything tested well, their job would be complete and they would be on their way back to Canada by the early afternoon Thursday.

See 'Fiber-optic cable' page 3



Above, cable is unraveled from a large spool, located topside at mid-ship, before being fed off the stern of the barge and onto the seabed.

At left, a Westpark Electric technician monitors the distribution of a fiber-optic cable on Thursday off the stern of the barge Empire 45 in Revillagigedo Channel at Mountain Point.

Staff photos by Dustin Saltschik



The submarine fiber-optic cable is shown aboard the barge Empire 45.

Photo courtesy of Ed Cushing

telecompetitor

AICan ONE Completed, Linking Alaska to Canada and U.S.

Hubs via First Terrestrial Fiber Network

Posted on May 27, 2020 by Carl Weinschenk [Share](#)

Broadband
Fiber Broadband
Regional Fiber Network

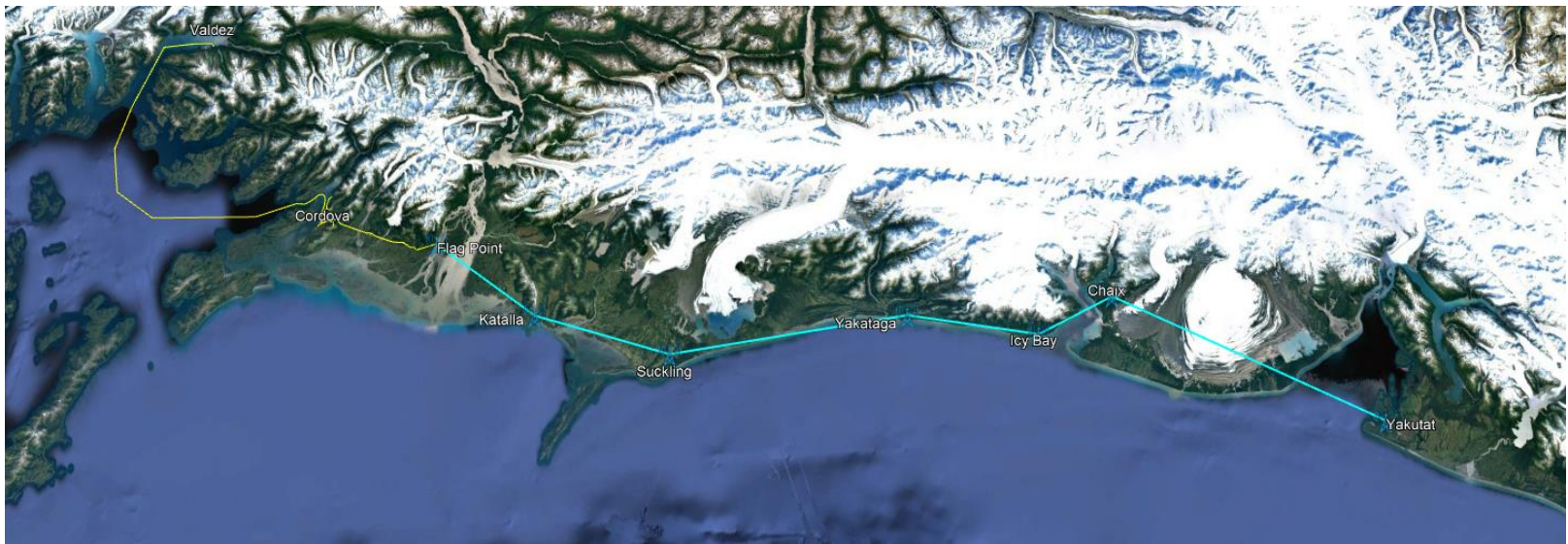
Home » AICan ONE Completed, Linking Alaska to Canada and U.S. Hubs via First Terrestrial Fiber Network



MTA Fiber Holdings has finished and fired up the Alaska Canada Overland Network (AICan ONE), which the company says is the only all-terrestrial fiber network connecting Alaska and the United States.

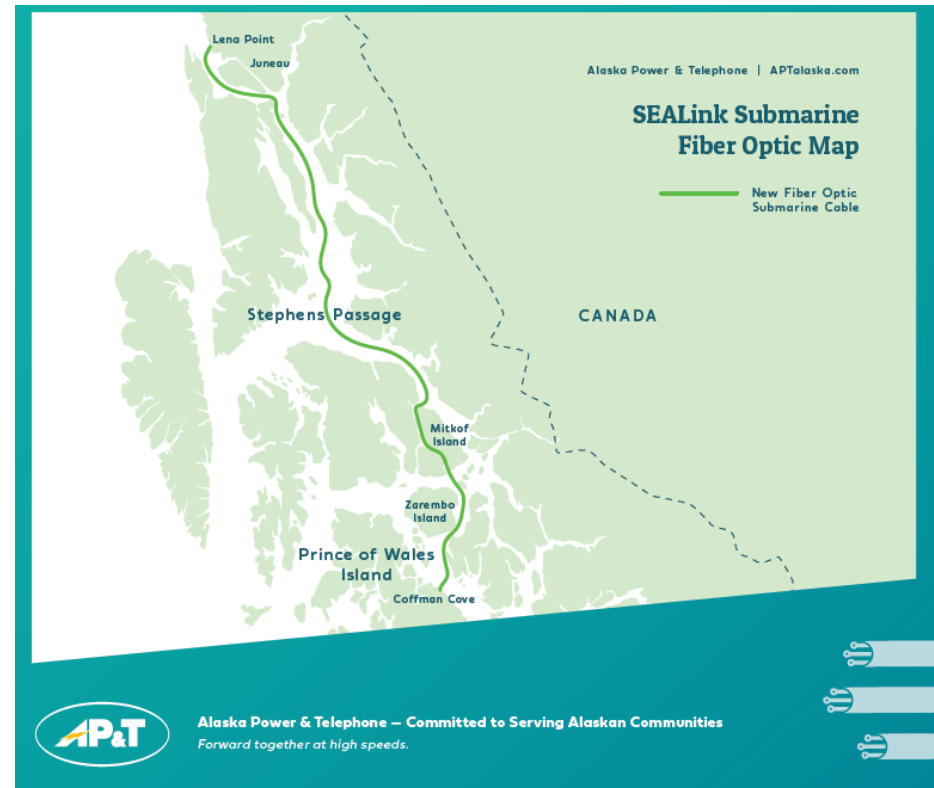
ReConnect Pilot Program Round 1

- ▶ Dec. 3, 2019 USDA awards Cordova Telecom \$18.9M grant to connect Yakutat



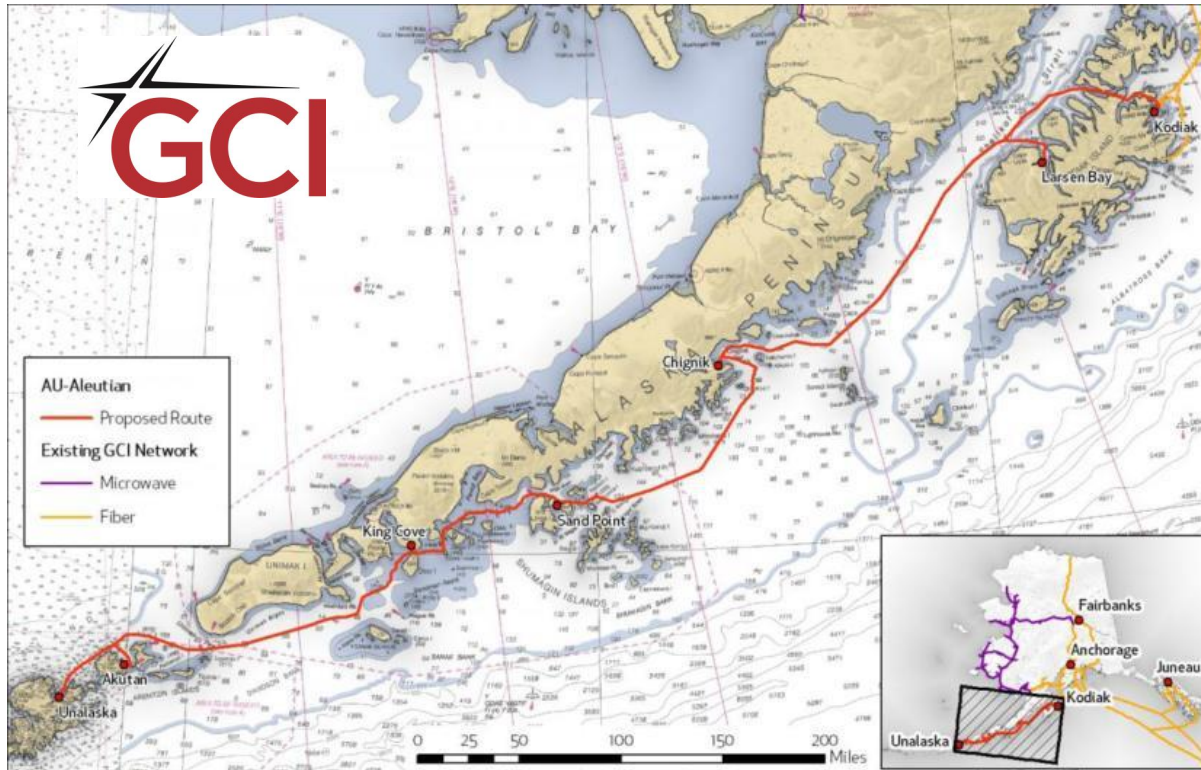
ReConnect Pilot Program Round 2

- ▶ October 12, 2020 USDA awards \$21.5M grant to Alaska Power & Telephone to connect Coffman Cove and Kasaan on Prince of Wales Island.



ReConnect Pilot Program Round 2

- ▶ October 12, 2020 USDA awards \$25M grant to GCI to build an undersea fiber connecting Unalaska, Akutan, King Cove, Sand Point, Chignik, & Larsen Bay



ReConnect Pilot Program Round 2

- ▶ November 12, 2020 USDA awards \$5.3M grant to ASTAC to connect Kaktovik.



Kaktovik Microwave Project Scope



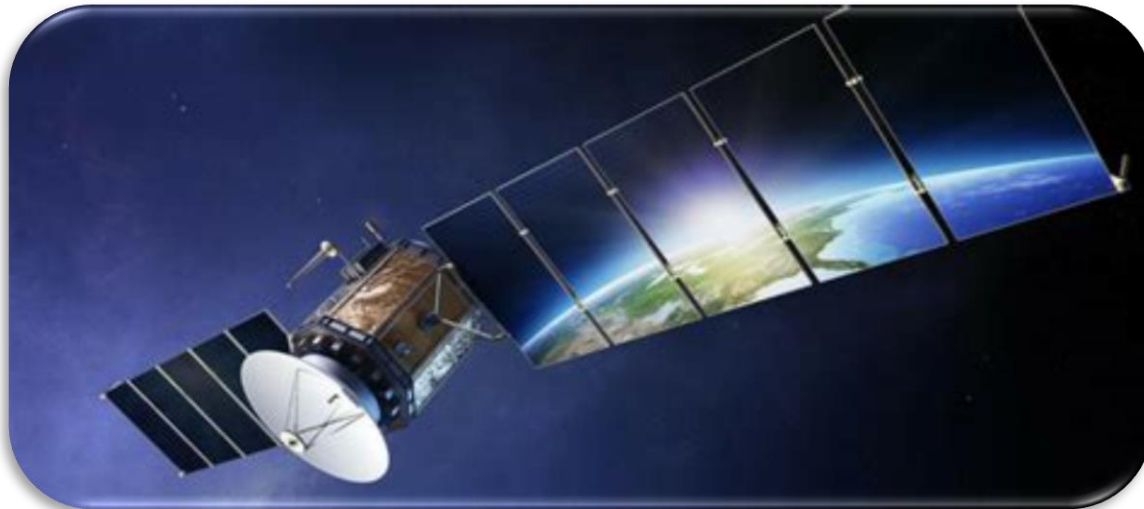
ReConnect Pilot Program Round 2

- ▶ November 12, 2020, USDA awards \$4.1M grant to TelAlaska & \$1.9M to Matanuska Telephone Association.
 - ▶ Brevig Mission
 - ▶ Teller
 - ▶ Caswell

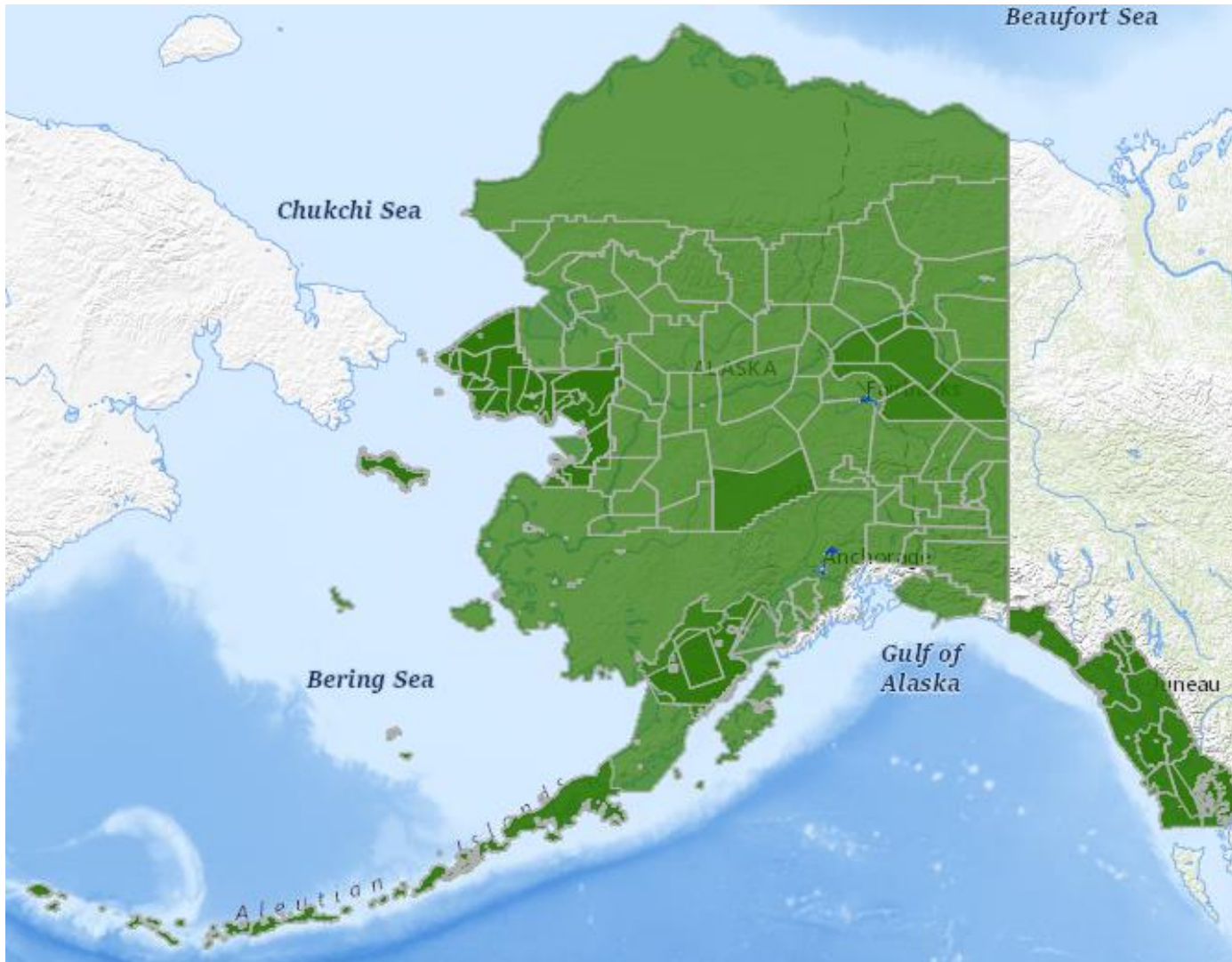


Low Earth Orbit Satellites - LEOS

- ▶ Starlink
- ▶ One Web
- ▶ Telesat



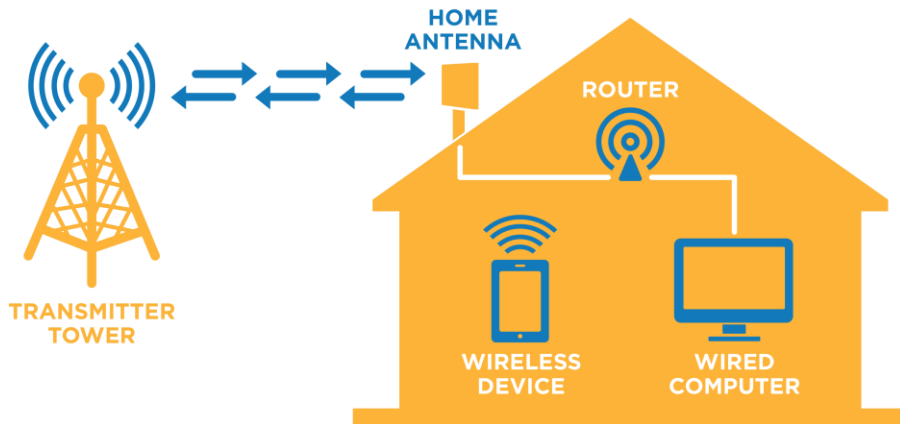
2.5GHz Rural Tribal Spectrum



How can we use 2.5GHz in Alaska?



— FIXED-POINT HIGH SPEED WIRELESS INTERNET —



What's next?

- ▶ Private investment
- ▶ Federal Programs
- ▶ State
- ▶ Congress



FCC

Federal Communications Commission

- ▶ Emergency Broadband Benefit
- ▶ Emergency Connectivity Fund
- ▶ Connect America Fund



USDA

U.S Department of Agriculture

- ▶ ReConnect
- ▶ Community Connect
- ▶ Distance Learning & Telemedicine



NTIA

National Telecommunications & Information Administration

- ▶ Tribal Broadband Connectivity Grants, \$1B
- ▶ Broadband Infrastructure Program, \$300M
- ▶ Connecting Minority Communities \$300M



State - Potential Action Steps

- ▶ Coordinate
- ▶ Gather Data
- ▶ Extend Availability
- ▶ Support Affordability
- ▶ Expedite Deployment

Congress

JON BROOKIN, Ars Technica BUSINESS 03.13.2021 07:00 AM

Democrats Are Getting Serious About Universal Broadband

After approving a \$7 billion fund to help students get internet access, lawmakers on the left proposed a \$94 billion package to deploy high-speed broadband nationwide.



THE AGENDA

OPINION | TECHNOLOGY

A Game Plan to—Finally—Connect Every American to Broadband

We've struggled for years to bring high-speed Internet to rural and low-income Americans. Here's how to get the job done.



House appropriators this year propose expanding USDA's ReConnect broadband program, clearing legislation through the chamber to give the department hundreds of millions of dollars. | Michael Bechler/Getty Images

By JOHN STANKEY
07/08/2020 04:30 AM EDT



ars TECHNICA

BIZ & IT TECH SCIENCE POLICY CARS GAMING & CULTURE STORIES

BROADBAND FUNDING —

Democratic-led Congress gets serious about universal broadband funding

Congress OKs \$7 billion for broadband and has another \$94 billion teed up.

JON BROOKIN - 3/11/2021, 10:48 AM

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Coronavirus crisis shows need for widespread high-speed internet in U.S. homes

The Washington Post
Democracy Dies in Darkness

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Opinions

America's digital divide is an emergency

ALASKA TELECOM ASSOCIATION

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