

Overview of Broadband in the State of Alaska

ALASKA STATE LEGISLATURE

Senate Labor & Commerce Committee

Senator Paskvan, Chair
Senator Thomas, Vice-Chair
Senator Davis
Senator Meyer
Senator Bunde



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Overview of Broadband in the State of Alaska

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Invited Testimony

ALASKA STATE LEGISLATURE

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Invited Testimony

- Mike Black, Deputy Commissioner, DCCED
- Krag Johnson, Chief Operating Officer, Denali Commission
- Steve Smith, Chief IT Officer, University of Alaska
- Bob Pickett, Chair, Regulatory Commission of Alaska
- Brent Legg, Connected Nation
- TBA, GCI Broadband Team
- TBA, AT&T Broadband Team
- TBA, ACS Broadband Team
- TBA, Kodiak-Kenai Cable Co.

Correspondence from the Office of the Governor

STATE OF ALASKA

OFFICE OF THE GOVERNOR

OFFICE OF MANAGEMENT AND BUDGET

SARAH PALIN, GOVERNOR

P.O. BOX 110020
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TELEPHONE: (907) 465-4660
FAX: (907) 465-3008

April 9, 2009

Broadband Technology Opportunities Program
U.S. Department of Commerce, Room 4812
1401 Constitution Avenue, N.W.
Washington, DC 20230

The attached comments are submitted on behalf of the State of Alaska in response to the National Telecommunications and Information Administration, U.S. Department of Commerce, and the Rural Utilities Service, U.S. Department of Agriculture's request for information about the American Recovery and Reinvestment Act of 2009 Broadband Initiatives.

Thank you for the opportunity to comment on the development of broadband opportunities.

Sincerely,



Karen Rehfeld
Director

State of Alaska
Response to NTIA, USDA RUS Joint Request for Information
April 9, 2009

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Executive Summary

The purposes for the Broadband Technology Opportunities Program (BTOP) as articulated in Section 6001 of the Recovery Act demonstrate that Alaska may be the “poster child” for BTOP. The purposes of BTOP include:

- Providing access to broadband service to consumers residing in unserved areas of the United States;
- Providing improved access to broadband service to consumers residing in underserved areas of the United States;
- Providing broadband education, awareness, training, access, equipment and support;
- Improving access to, and use, of broadband service by public safety agencies; and
- Stimulating the demand for broadband, economic growth and job creation.

When it comes to access to broadband, Alaska residents are the most “unserved” and “underserved” population in the United States. Public safety agencies in rural Alaska do not have interoperable communications. The unemployment rate in these areas is consistently higher than anywhere else within the contiguous 48 states. In rural Alaska access to health care and educational opportunities are limited, but both have expanded in communities with reliable broadband service. Broadband infrastructure and access is particularly important in Alaska where other traditional infrastructure such as roads connecting communities together often do not, and may not ever, exist.

The barriers to broadband access in Alaska include vast distances, challenging topography, a lack of basic infrastructure, and affordability. Improving access to and expanding broadband infrastructure across rural Alaska requires innovative cooperative projects across the private and public sectors, including state agencies, university, native corporations, and regional non-profit agencies and providers. The State requests the NTIA and RUS consider these challenging factors as they create and refine competitive grant and loan program opportunities under BTOP.

Background

Distance, Topography, Lack of Basic Infrastructure, Affordability

The limited broadband infrastructure in Alaska is the result of the compounded challenges imposed by great distances, demanding topography, and the general lack of basic infrastructure which is taken for granted elsewhere in the United States. Alaska's rural broadband infrastructure is limited to satellite hub connectivity with just a few regions offering any multi-community distribution by means of a microwave network. While fiber optic infrastructure is more economical to maintain, the costs of initial construction has been prohibitive due to the combination of the geographic challenges of distance and topography and the sparse populations available to provide the user base to offset construction debt and support the on-going costs of operations and maintenance. Expansion of the user base of the existing limited broadband infrastructure which could lower individual rates is as critical across rural Alaska as is any expansion of broadband infrastructure.

Affordability of broadband service is a major challenge to expanding availability of such service in rural Alaska. High costs for fuel, electricity, and water and sewer service, combined with limited cash incomes, make it difficult for many rural Alaskans to afford their current fuel and utility bills. Adding another monthly bill for individual broadband service, even at the rates charged in lower cost areas of the contiguous U.S., is simply not practical for many rural Alaskans. One potential solution to this issue is providing public broadband access through community centers and other public facilities.

“Unserved” and “Underserved”

By any definition of “unserved” and “underserved”, Alaska's rural areas are the least advanced in broadband service in the entire United States. During the March 19 hearing, the NTIA heard recommendations for defining “unserved” areas of broadband service that ranged from census tracts with downstream speeds of less than 3-5 mbps to census tracts defined by quantities of urban public housing or pockets of poverty. Another definition of “unserved” was an area limited to dial up or satellite connectivity.

Alaska's rural areas are, for the most part, limited to satellite connectivity. There are only limited areas in rural Alaska which have any terrestrial microwave distribution systems which deploy broadband services across limited areas. Much of Alaska's rural communities have no access to broadband service at all. Where satellite broadband connectivity does exist, downstream and upstream speeds are only a fraction of 1 mbps. In correspondence with U.S. Senator Stevens the Regulatory Commission of Alaska (RCA) reported obtaining information on internet availability for 341 Alaska communities. This research indicated that approximately 47 Alaska communities are without local dialup or broadband internet service. The vast majority of the 294 communities with Internet availability through local dialup or broadband receive signal at or below 256 kbit/s speeds

http://rca.alaska.gov/RCAWeb/Documents/Broadband/Internet_connectivity-070112.pdf).

If broadband infrastructure access and expansion are fundamental to economic development efforts in today's global economy, Alaska's rural areas are among the most demanding of broadband infrastructure funding. Alaska's rural areas have some of the highest unemployment rates in the United States, currently ranging from 15 percent to over 20 percent in some areas. These rural Alaska unemployment rates are two to three times higher than most regions across the contiguous 48 states.

The unemployment rates in the U.S. Department of Labor as of January 2009 reported the highest rate of unemployment as 12 percent in the state of Michigan. While the overall unemployment rate for Alaska in January was 7.8 percent, the unemployment rates in rural Alaska exceed these averages.

The main reason most Alaska communities are "unserved" or "underserved" by broadband technologies is due to the extraordinary remoteness of rural Alaskan communities which drives the cost of providing broadband access up. Lack of access to broadband in Alaska represents a significant barrier to economic development, access to health care through telemedicine and educational opportunities. Most rural communities have no connectivity to the road system. Transportation connections that do exist are by expensive air transport. This logistical situation increases costs and reduces availability of markets, resources, access to health care and educational opportunities to residents.

Economic Development

The availability of the internet through broadband access offers the best method for advertising goods and services in Alaska's rural communities. Enterprises such as ecotourism businesses and Native handicrafts are just two examples of how broadband can aid economic development. Internet access also offers a means to purchase supplies and equipment which can reduce the cost of doing business. Additionally, broadband access encourages businesses to take advantage of the full range of internet services such as federal tax preparation and reporting, internet banking, grant and loan applications, participation in training opportunities, networking through trade associations, research and general communications.

Public Safety, Health Care, Education

Life, health and safety demands in rural Alaska are at high risk due to this limited and satellite-dependent broadband infrastructure. Currently there are no communities with interoperable public safety communication capabilities in Alaska's rural regions. Few, if any, local communities have the ability to communicate with public safety resources in their neighboring communities let alone with state or federal public safety resources.

Recognizing this risk, the Alaska Division of Homeland Security within the Alaska Department of Military and Veterans Affairs has targeted rural Alaska public safety interoperable communication as the first priority in its state-wide interoperable communication planning and implementation efforts. These efforts are funded by the NTIA through the Public Safety Interoperable Communication (PSIC) grant program.

Access to health care in rural Alaska is limited due to distance, topography, lack of basic infrastructure and affordability issues. While Alaska has pioneered the field of telehealth and telemedicine using broadband, access to health care is still very limited in rural Alaska. New and expanded access to broadband is needed to improve access to health care in rural Alaska.

Broadband is an important element for education in rural Alaska. Broadband can (and does) bring educational opportunities and interactions to rural Alaska that can not be provided any other way due to the isolated nature of many communities. Additionally, technology is a cornerstone on which all business, public or private, is based today. As part of the future workforce, children living in rural Alaska must become competent in the use of rapidly changing technology. Increasingly, the use of the internet via broadband is a critical component of technology.

NTIA Request for Information Questions

2. The Role of the States: The Recovery Act states that NTIA may consult the States with respect to various aspects of the BTOP. The Recovery Act also requires that, to the extent practical, the BTOP award at least one grant to every State.

Under the Broadband Act of 2008 states are required to designate one entity to coordinate broadband mapping and planning. In Alaska, coordination of broadband mapping and planning is even more challenging than in most other states due to the challenges of the current limitations of satellite-only broadband service infrastructure, coupled with the additional challenges facing efforts to increase broadband services with more cost effective and greater functional speeds of fiber optic infrastructure. As noted above, these challenges include the high cost of infrastructure development due to vast distances across demanding topography compounded by the sparse population densities available to support sufficient user costs required to offset both construction debt retirement and on-going operating and maintenance costs.

Improving access to existing broadband infrastructure and expanding that infrastructure will require creative and collaborative efforts across state and political subdivisions, university, non-profit organizations, regional native organizations, and the U.S. Department of Commerce supported by the Denali Commission. The role of the State of Alaska is to enable this consortium effort across both mapping of existing broadband services as well as the coordination of all stakeholders through the process of creating a

single strategy for long-term broadband infrastructure throughout Alaska. To this end, the State of Alaska has requested the Denali Commission, a joint federal-state agency, to coordinate these consortium efforts on broadband.

A primary and critical challenge facing this coordinated consortium planning effort for Alaska's broadband infrastructure development is to ensure that any infrastructure expansion is sustainable across its life cycle of operations and maintenance. Identifying and sustaining all broadband infrastructure needs and the resulting interdependencies between the private and public sectors is key to identifying synergies which will make broadband expansion feasible across rural Alaska from a sustainability perspective.

The Recovery Act requires the FCC to produce a national broadband plan by May 2010. An Alaska state-wide map and plan will inform the national plan and poise Alaska entities for maximum success for using Recovery Act broadband programs.

A second key role of the State of Alaska is to ensure accessibility and availability of State services to all Alaskans. Increasingly, Alaskans are demanding online services from State agencies. This has required annual expansion of the State's broadband access. Rural businesses, residents and community governments (tribal and municipal) have unequal access to private and government services such as: online business license applications, government program applications, research and data, federal tax reporting, and electronic banking.

Municipal and borough governments, like State offices, provide important access for citizens to web based information and resources. Many have a public computer set up for use by citizens that cannot afford computer service. Most households don't have the resources to have state of the art computers or software, with as many as 70% below federal poverty level. Therefore they rely on public and non profit institutions to get access to the internet. Although State of Alaska offices exist in rural regional centers to help individuals and organizations with access to State services, these State offices do not have broadband access that fully utilizes the available broadband speed and capacity in private owned delivery systems.

The State of Alaska plays also plays a role in ensuring that public safety interoperable communications infrastructure is extended across rural Alaska. The lack of any public safety interoperable communication systems heightens risk to rural Alaskans when incidents arise. Neighboring communities are not even connected by interoperable public safety communications let alone have interoperable communication infrastructure, broadband dependent, which connects them to critical state and federal public safety resources.

The State of Alaska has an interest in seeing broadband access expanded throughout Alaska to enable delivery of telemedicine in communities with limited access to health

care. The State also has an interest in seeing broadband access expanded to enrich educational opportunities for school children.

4. Establishing Selection Criteria for Grant Awards: The Recovery Act establishes several considerations for awarding grants under the BTOP. In addition to these considerations, the NTIA may consider other priorities in selecting competitive grants.

BTOP grant application and selection criteria should be drafted to establish State competitiveness for projects with the limited objective of improving access to existing broadband infrastructure for state services including and public health, safety and education.

States and political subdivisions (Sec. 6001(e)(A)) cannot compete for BTOP grant funds if required to meet all grant purposes established in Sec.6001 (b) and (g) of the Recovery Act which are currently focused on the private sector. Recovery Act language is unclear whether states and political subdivisions are eligible to apply for and be competitive in the grant award process for projects that meet only one of the BTOP grant purposes. In addition, while grant funds are available to “construct and deploy broadband facilities that improve public safety broadband communications” (Sec.6001(g)(5)), Recovery Act language is unclear whether states and political subdivisions are eligible for grant funds if this construction and deployment is for improving access to existing broadband infrastructure only.

As explained earlier, Alaska’s rural areas are the least advanced in broadband service across the entire United States. Access to existing broadband infrastructure in rural Alaska requires significant capital investment in hardware and software. Currently no interoperable communication system exists for public safety agencies in rural Alaska. The Alaska Department of Military and Veterans Affairs, Division of Homeland Security, is currently preparing a state-wide interoperable communication plan with PSIC grant funds from NTIA.

Constructing such an interoperable communication system accessing existing broadband infrastructure by public safety agencies also requires the construction of additional significant capital assets for radio distribution and connectivity, e.g. towers, antennae, routers, switches, and even microwave distribution systems. Even where limited terrestrial broadband network connectivity does exist in rural Alaska, access by the State of Alaska and political subdivisions still requires additional infrastructure investment. Access by public safety agencies still requires the additional capital investment for radio signal connectivity and distribution.

9. Financial Contributions by Grant Applicants: The Recovery Act requires that the Federal share of funding for any proposal may not exceed 80 percent of the total grant. The Recovery Act also requires that applicants demonstrate that their

proposals would not have been implemented during the grant period without Federal assistance. The Recovery Act allows for an increase in the Federal share beyond 80 percent if the applicant petitions NTIA and demonstrates financial need.

BTOP grant eligibility requirements should be drafted to eliminate match requirements for states and political subdivisions. Grant eligibility language that waives match requirements for building or expanding public safety interoperable communication system access to existing broadband infrastructure is essential to advance critical public safety requirements in rural Alaska. At a minimum, match requirements should be defined to allow the generous use of in-kind state and political subdivision expenditures.

BTOP criteria for 20% matching funds (Sec 6001(f)) are prohibitive requirements for states and political subdivisions within the current economic environment. Additional language in this section (Sec.6001(f)(1)-(2)) allows for a reduction in matching funds but requires the applicant to submit a waiver petition and further requires that the petition is judged to demonstrate financial need. This language is very general and does not define the conditions required to demonstrate financial need by the applicant. In addition, the petition waiver process will require time and, by definition, will limit any competitiveness by states or political subdivision for grant funds.

One competitive criterion established in the Recovery Act BTOP language is to “ensure access to broadband service by community anchor institutions” (Sec.6001(g)(3)). Using BTOP grant funds to support access to existing broadband infrastructure in rural Alaska by the state and political subdivisions would enable public sector entities to establish themselves as “community anchor institutions.” Increasing the “anchor” capabilities of in rural Alaska could provide the increased connectivity numbers needed by providers to offset capital debt incurred by building broadband infrastructure or to contribute to on-going operations and maintenance expenses.

12. Coordination with USDA’s Broadband Grant Program: The Recovery Act directs USDA’s Rural Development Office to distribute \$2.5 billion dollars in loans, loan guarantees, and grants for broadband development. The stated focus of the USDA’s program is economic development in rural areas. NTIA has broad authority in its grant program to award grants throughout the United States. Although the two programs have different statutory structures, the programs have many similar purposes, namely the promotion of economic development based on deployment of broadband service and technologies.

BTOP (Sec.6001) and RUS loan and grant (Title I) application and selection criteria should be drafted to encourage the coordination of grant and/or loan awards to ensure the competitiveness of comprehensive and likely consortium-driven broadband infrastructure projects across rural Alaska.

As noted earlier, access to existing broadband infrastructure and expanding broadband infrastructure across rural Alaska will require a consortium of efforts by private carriers, non-profit organizations, regional native organizations, local and regional political subdivisions and the State of Alaska. It is likely that applicants will be required to utilize both NTIA and RUS funding sources to satisfy the requirements for successful construction as well as long term user commitments to guarantee critical on-going operating and maintenance costs of that infrastructure.

In some cases, expansion of existing terrestrial broadband infrastructure will first require the solidification of anchor commitments to existing limited broadband infrastructure before expansion of that infrastructure can be financially justified and executed.

These interlinking critical over-all project components will likely require access to both funding sources for individual project components by one or more applicants. The competitiveness of the overall project will require recognition and support of the individual project efforts, likely by more than one applicant. The success of the overall project will require coordination between both BTOP and RUS grant programs to ensure the competitiveness of the individual applications by project participants.

15. Please provide comment on any other issues that NTIA should consider in creating BTOP within the confines of the statutory structure established by the Recovery Act.

The NTIA should recognize the fact that a primary reason many communities are “underserved” or “unserved” is because the costs of providing the service can not be recouped. BTOP funds should be used to make unsustainable broadband projects sustainable by providing capital grant funds for increasing and expanding broadband access in “unserved” and “underserved” areas. It is important that broadband projects be structured so that ongoing maintenance and operation costs can be recouped from ongoing revenues.

NTIA grant application and selection criteria should ensure state and political subdivision competitiveness for projects that enhance the state’s ability to meet FCC Narrowband Mandate requirements in rural areas.

Current FCC Narrowband Mandate requirements continue to place an unfunded burden on state and political subdivisions across rural Alaska with only two years remaining for compliance. Without access to federal grant funds, most political subdivisions and rural Alaska state legacy radio systems will be hard pressed to meet these FCC Narrowband Mandate requirements.

RUS Request for Information Questions

3. How should RUS evaluate whether a particular level of broadband access and service is needed to facilitate economic development?

BTOP and RUS grant application selection criteria should establish criteria that encourage infrastructure development which increases access to existing broadband infrastructure in rural areas to improve existing economic development programs. Key to this is acknowledging that most economic development facilitation programs are driven by the public sector and non-profit organizations.

Often, in rural Alaska communities, state, borough, city or tribal offices, provide the only access to broadband internet access for information and resources. Many have a public computer set up for use by citizens who cannot afford computers or broadband service. Most households, with as many as 70 percent below federal poverty level, do not have the resources to have computers or software much less pay for broadband access. Thus, many citizens in rural Alaska rely on public and non profit institutions to get access to the internet.

Most economic development facilitation programs are driven by programs promoted by the public sector and non-profit organizations and are delivered at the local level. The Alaska Department of Commerce, Community and Economic Development (DCCED) offers the Small Business Economic Development Program, the Rural Development Initiative Fund, and the Alaska Capstone Avionics Loan Program just to name a few. In addition, DCCED offers general assistance through its Office of Economic Development and its Division of Corporations, Business, and Professional Licensing.

Broadband access to these programs online is especially important for communities in rural Alaska which do not have State offices in their community. Whether applying for and renewing a business license, applying for a business loan, or seeking publicly financed infrastructure, or hoping to bid on public projects and services – broadband access enhances economic opportunities in small communities.

The effectiveness of these existing economic development programs across rural Alaska could be improved by expanding access to the limited broadband infrastructure where it already exists and expanding broadband infrastructure into “unserved” areas. Current broadband infrastructure in most areas of rural Alaska is dependent on satellite connectivity to support a terrestrial microwave network distribution system. Access to this existing terrestrial network system requires significant additional capital infrastructure investment by the State of Alaska and political subdivisions.

Even 1 megabits-per-second downstream and 250 kilobits-per-second upstream speeds, which are below minimal staple speeds as defined by broadband carriers across the contiguous states by as much as 50 percent, are currently unachievable by

state agencies in rural Alaska. Any expansion of the existing limited broadband infrastructure in rural Alaska across the next two years will continue to require satellite connectivity and microwave network distribution systems. As discussed above, existing and expanded broadband infrastructure development in rural Alaska is dependent on anchor user commitments. Without capital investment in the hardware and software infrastructure to improve access speeds to existing broadband infrastructure across rural Alaska, let alone its expansion, critical economic development programs are significantly hampered.

4. In further evaluating projects, RUS must consider the priorities listed below. What value should be assigned to those factors in selecting applications? What additional priorities should be considered by RUS?

RUS grant funding priorities and selection criteria should ensure state and political subdivision competitiveness for projects that support expansion of existing state and local and public safety interoperable communications where they are limited or do not exist.

Currently public safety interoperable communications do not exist across rural Alaska. Rural Alaska encompasses an area equal to more than 10 percent of the entire area of the 48 contiguous states. In most cases, rural Alaska communities do not even have public safety interoperable communications with their neighboring communities. Establishing minimal public safety interoperable communication capabilities across rural Alaska is the primary objective the Alaska's Public Safety Interoperable Communication program established and funded, in part, by NTIA through the Alaska Department of Military and Veterans Affairs, Division of Homeland Security.

While access to satellite broadband connectivity is available to major community hubs in rural Alaska, even limited public safety interoperable communication systems require significant infrastructure investment for satellite access as well as for minimal local and regional terrestrial network distribution systems.

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Governor Sean Parnell
STATE OF ALASKA

July 29, 2009

Mr. Lawrence E. Strickling
Assistant Secretary for Communications and Information
National Telecommunications and Information Administration
United States Department of Commerce
1401 Constitution Avenue, NW, Room 4898
Washington, DC 20230

Re: State Broadband Data and Development Grant Program

Dear Mr. Strickling:

The purpose of this letter is to affirm that the Denali Commission is the single eligible entity that has been designated by the state of Alaska to receive a grant under the State Broadband Data and Development Grant Program. The state of Alaska looks forward to working with the Denali Commission and the NTIA on this important project.

Sincerely,



Sean Parnell
Governor

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Governor Sean Parnell
STATE OF ALASKA

August 7, 2009

Mr. Lawrence E. Strickling
Assistant Secretary for Communications and Information
Broadband Technology Opportunities Program
National Telecommunications and Information Administration
United States Department of Commerce
HCHB, Room 4812
1401 Constitution Avenue, NW
Washington, DC 20230

Mr. Dallas Tonsager
Under Secretary for Rural Development
Broadband Initiatives Program
Rural Utilities Service
United States Department of Agriculture
1400 Independence Avenue, SW, Stop 1599
Washington, DC 20250

Re: Broadband Technology Opportunities Program

Dear Mr. Strickling and Mr. Tonsager,

Alaska sits squarely within the purposes set forth in the Broadband Technology Opportunities Program (BTOP) under Section 6001 of the American Recovery and Reinvestment Act. Broadband infrastructure in Alaska is particularly important because it may represent the only opportunity for economic growth and job creation in many of our remote, rural communities. Additionally, broadband access in rural Alaska is critical for public safety, access to health care, and for providing educational opportunities.

Broadband infrastructure and access are vital to Alaska as traditional infrastructure, such as roads connecting communities, often does not and may not ever, exist. We see access to broadband as a 21st century technology that, in many cases, can be a substitute for the infrastructure of the 19th and 20th centuries that may be difficult and prohibitively expensive to construct and maintain in Alaska.

When it comes to broadband access, Alaska residents are the most unserved and underserved population in the United States. Public safety agencies in rural Alaska do not have interoperable communications. The unemployment rate in these areas is consistently higher than anywhere within the contiguous 48 states. In rural Alaska, access to health care and educational opportunities are limited, but both have expanded in communities with reliable broadband service. Finally, Alaska's ability to provide rural

Mr. Lawrence E. Strickling
Mr. Dallas Tonsager
August 7, 2009
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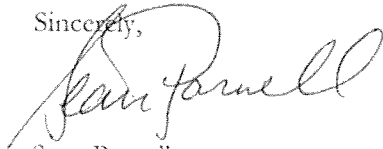
schools with a full range of courses and with access to highly qualified teachers is dependent on its broadband infrastructure.

I understand that several Alaska entities may file broadband applications with the Rural Utilities Service (RUS) or the National Telecommunications and Information Administration (NTIA). Some of these may be in competition with each other; others will not be. Further, some proposals will encompass broad geographic areas of the state while others will focus on a more limited number of communities.

I believe you will find that the Alaska applications are designed to address the important social and economic needs of the state of Alaska. I commend each application to your attention and know that you will give them the careful study they deserve.

Thank you for considering my views.

Sincerely,

A handwritten signature in cursive script that reads "Sean Parnell". The signature is written in dark ink and is positioned above the printed name and title.

Sean Parnell
Governor

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Governor Sean Parnell
STATE OF ALASKA

October 13, 2009

Mr. Lawrence E. Strickling
Assistant Secretary for Communications
and Information
National Telecommunications and
Information Administration
Washington, DC 20230

Dear Mr. Strickling,

Thank you for the opportunity to comment on Alaska's applications for the Broadband Technology Opportunities Program (BTOP). This program is very important to Alaska, and I appreciate the National Telecommunications and Information Administration's (NTIA) efforts in reviewing and selecting projects for funding under the program.

As you know, in terms of broadband access, Alaska has the largest unserved and underserved geographic area of any state in the nation. The 29 BTOP applications that would primarily serve Alaska include many projects that would substantially improve broadband access across much of the state.

Your letter of September 18 requested that Alaska explain why particular applications would meet the greatest needs of the state. We have found this to be a very difficult task. One issue has been that under the NTIA's original plan for the BTOP application process, the NTIA was going to complete a technical review of all the applications, and then ask states to comment only on the applications that passed technical scrutiny and ranked as the most promising applications.

However, under the NTIA's revised process, this technical review has not yet been completed. It is difficult for the State of Alaska to prioritize applications without the technical review work having been done, and it is simply not possible for us to complete a thorough technical review of our own in the allotted time for comment. We are reluctant to recommend particular applications that may not pass the NTIA's technical review.

It is also difficult to prioritize applications given the considerable uncertainty regarding the amount of BTOP funds that the NTIA may award to Alaska. Some of the Alaska applications that are the most promising are also the most costly projects, and it is unclear whether those projects are likely to be funded given the amount of BTOP funds available nationally.

We also have concerns about the competitive fairness of state government recommending applications of competing companies or non-profit organizations over one another, in the absence of evidence that one application is clearly superior to another.

Mr. Lawrence E. Strickling
October 13, 2009
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Because of these concerns, I have chosen not to prioritize or recommend particular Alaska applications. My staff and I have also considered whether specific technologies or types of applications, such as middle mile or last mile projects, should receive priority. In Alaska, there is a role and a need for different technologies in different regions of the state, and for larger and smaller communities. Both middle mile and last mile projects are needed to provide broadband access throughout rural Alaska. Therefore, we are not going to prioritize particular technologies or types of projects.

What we do recommend is that priority be given to those applications that would provide broadband service to the greatest number of unserved or underserved Alaskans with the amount of available funds. We also recommend that a higher priority be placed on the projects that score well in the NTIA's technical review, with designs that can be affordably operated and maintained, and that will have a long life span.

Affordability of service should also be a key factor in awarding BTOP grants. Much of rural Alaska has chronically high unemployment, making it difficult for many residents to afford broadband service unless it is affordably priced.

In evaluating Alaska's allocation of the total BTOP funds, I encourage you to consider that while there are many rural areas of the United States, very few communities in the Lower 48 are not on a road system. In Alaska, there are over 150 communities that are not accessible by road, and are effectively much more isolated and in need of modern communications than most rural communities in the 48 contiguous states.

Currently, Alaska's rural communities primarily rely on a mix of satellite and microwave systems for internet access. A set of maps showing the coverage provided by these systems is enclosed.

In closing, I believe that the BTOP program can have a greater impact in improving the quality of life, economic development, and educational opportunities in Alaska than in any other state. Our vast distances and the lack of road access to most rural communities mean that without federal assistance, private and non-profit organizations will not be able to provide affordable broadband access to most Alaska communities.

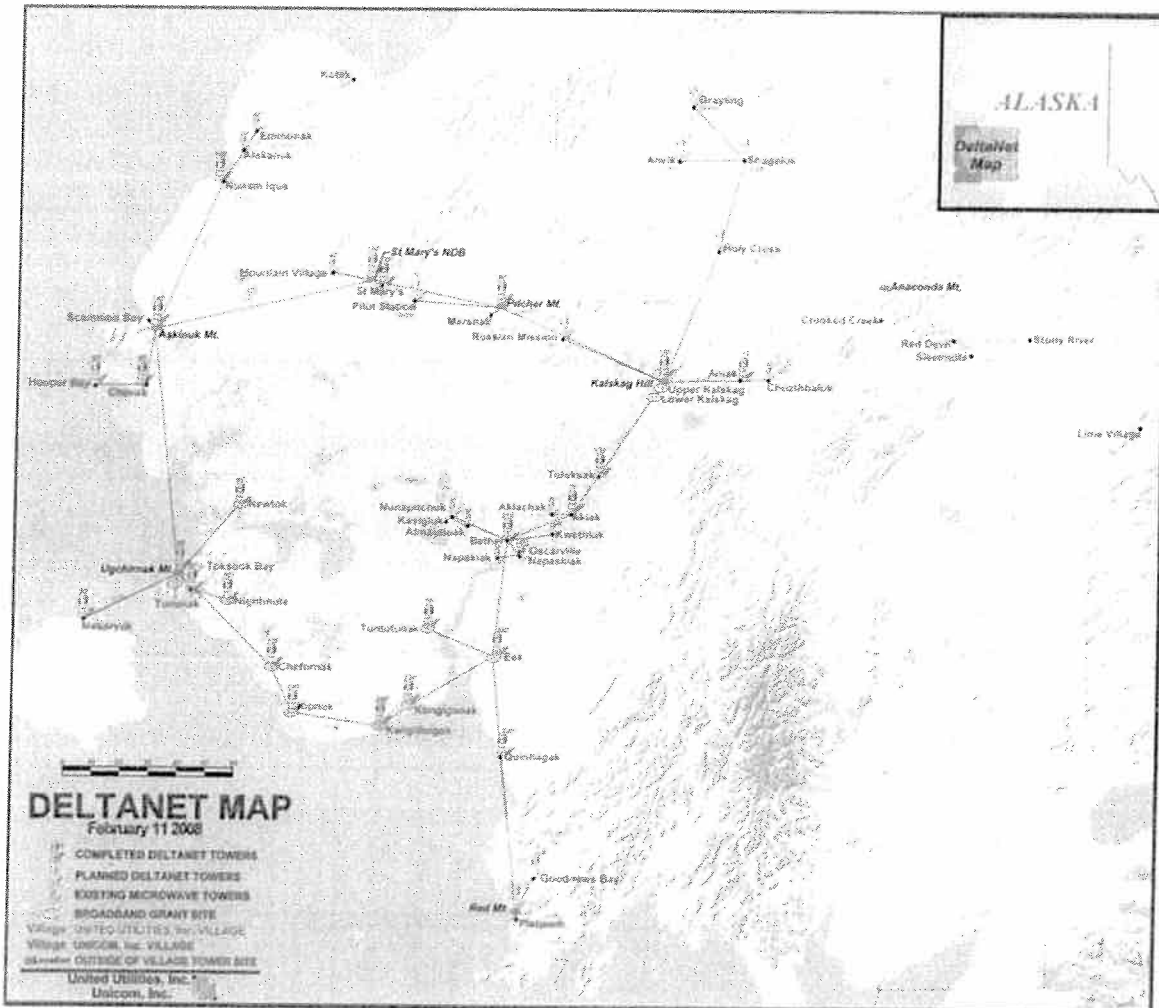
Thank you for your consideration of these comments.

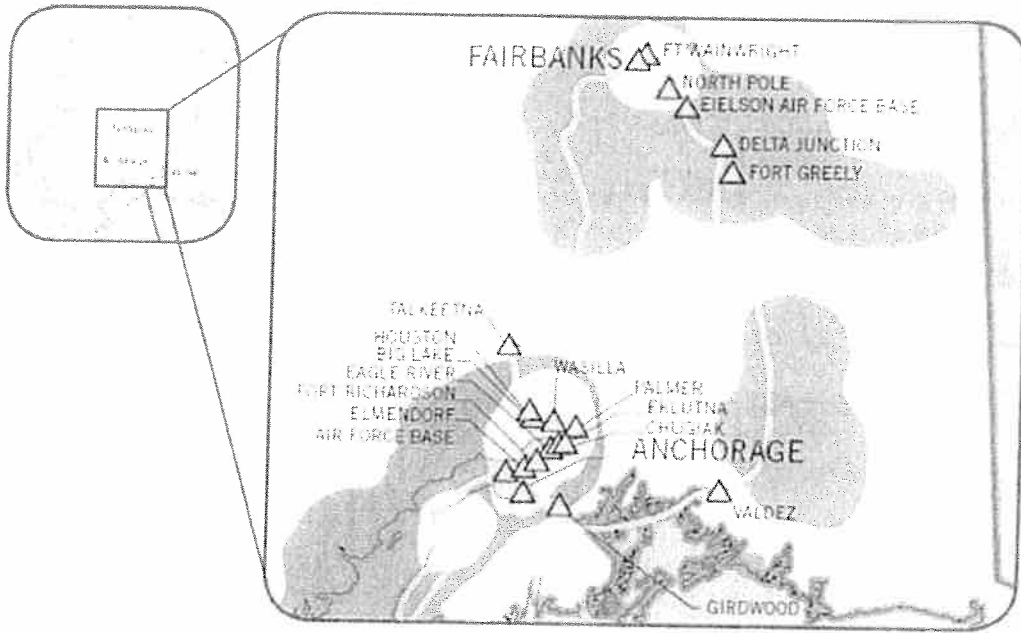
Sincerely,


Sean Parnell
Governor

Enclosures

DeltaNet — Broadband Microwave Network in the YKHC Region

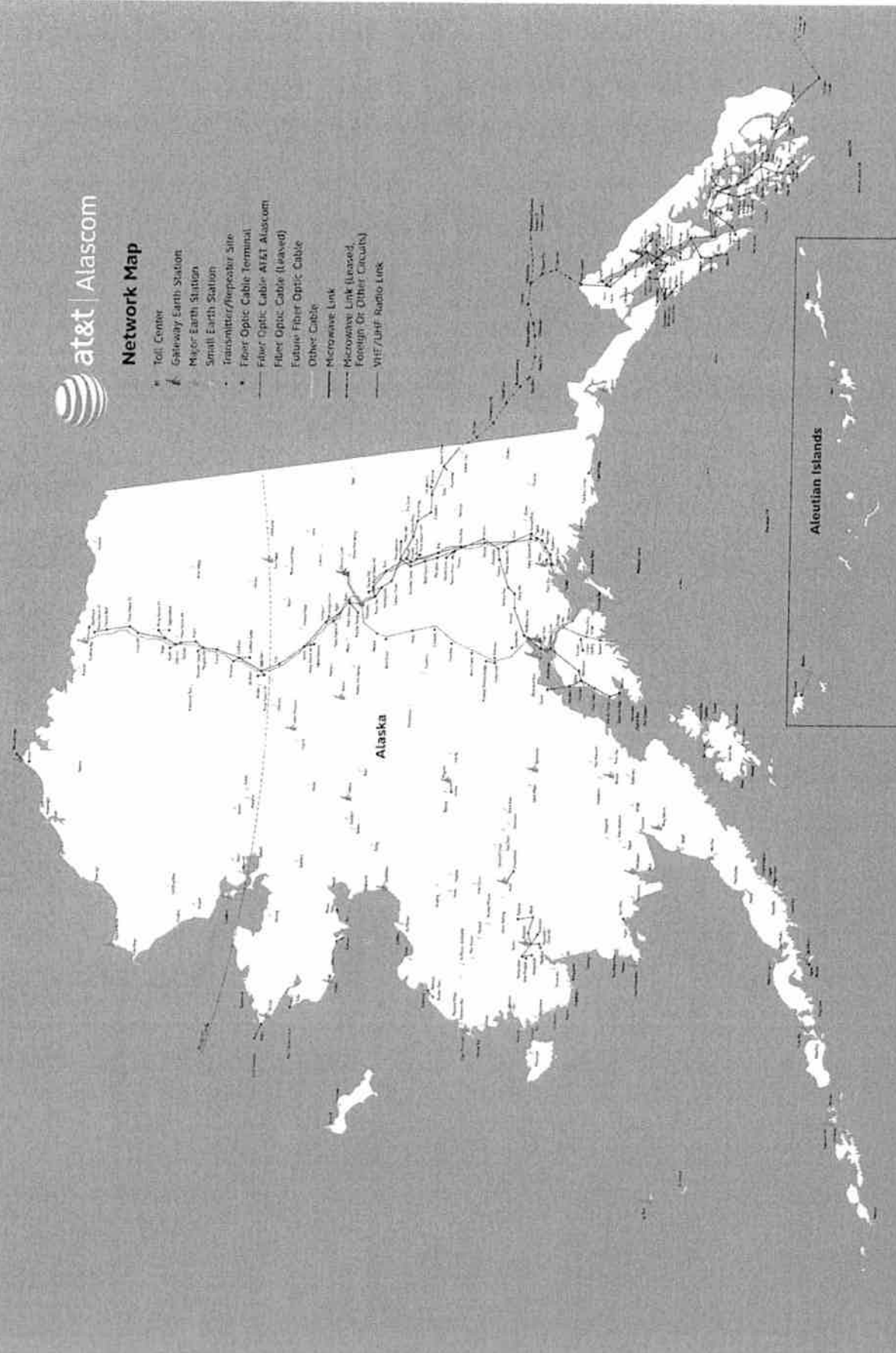


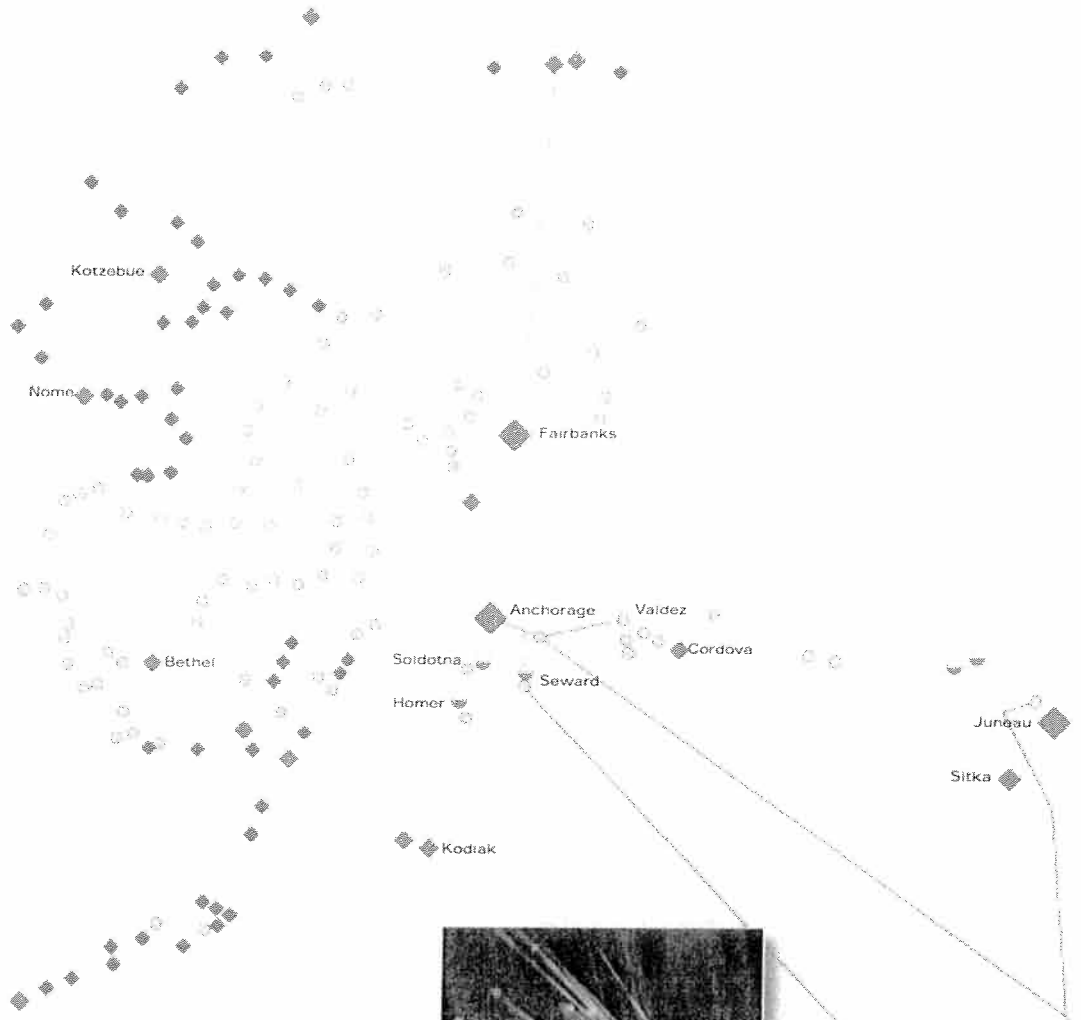




Network Map

- Toll Center
- Gateway Earth Station
- Major Earth Station
- Small Earth Station
- Transmitter/Repeater Site
- Fiber Optic Cable Terminal
- Fiber Optic Cable - AT&T Alascom
- Fiber Optic Cable (Leased)
- Other Fiber Optic Cable
- Other Cable
- Microwave Link
- Microwave Link (Leased, Foreign Or Other Circuits)
- VHF/UHF Radio-Link



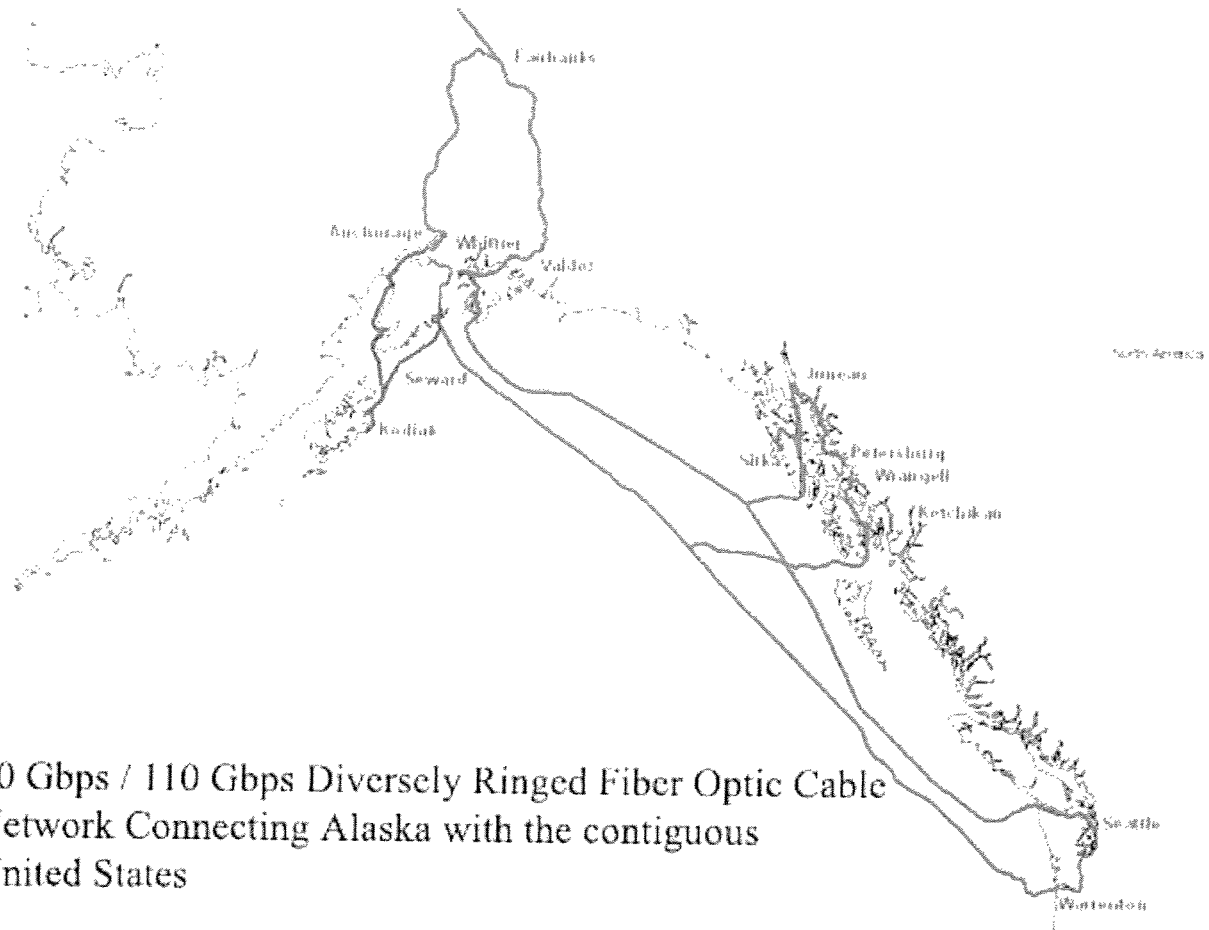


- ◆ GCI 13 Meter Earth Station-GCI's gateway earth stations gathering traffic from regional sites and from GCI Distribution centers. These sites also carry DAMA traffic from rural Alaska.
- ◆ GCI 9 Meter Earth Station-GCI's gateway earth stations gathering traffic from regional sites and from GCI Distribution centers. These sites also carry DAMA traffic from rural Alaska.
- ◆ GCI 3.6 Meter Earth Station-GCI's village earth stations carrying telephone traffic from both villages to regional and larger earth stations utilizing DAMA technology.
- GCI Point of Presence-A GCI serving point in a community providing toll service through leased facilities.
- Ku Band School Access Site and Private Network
- Fiber Optic Route

Kodiak Indicates Cable/Entertainment and customer service office

*Not all services and facilities are represented on this map





10 Gbps / 110 Gbps Diversely Ringed Fiber Optic Cable Network Connecting Alaska with the contiguous United States

Information re: \$1.9M Award



FOR IMMEDIATE RELEASE
November 30, 2009
2009-258

Contact: Julie Hasquet, Press Secretary
(907) 258-9304 office

Recovery Act Awards Alaska \$1.9 million for Broadband Expansion
Denali Commission awarded money for data collection, mapping

Recognizing the vital role the internet plays in educating youth, extending health care and growing small business, U.S. Sen. Mark Begich today announced \$1.9 million in grants for broadband mapping and planning in Alaska. The Department of Commerce's National Telecommunications and Information Administration (NTIA) funds, awarded in two grants to the Denali Commission, will assist the development of high speed internet access across Alaska. The program is funded by the American Recovery and Reinvestment Act (ARRA) passed by Congress in February.

"The internet has become a necessary component of everyday life in Alaska's cities and rural villages," Begich said. "Expanding broadband access across Alaska is critical to creating new economic opportunities for small businesses and individual Alaskans in every size community."

Of the \$1.9 million, approximately \$1.4 million will be allocated for broadband data collection and mapping activities, which will take place over a period of two years. Combining the joint purposes of the ARRA and the Broadband Data Improvement Act, these efforts will identify and verify the availability, speed and location of broadband services. This data will be posted in a searchable national broadband map publicly available through the NTIA beginning on February 17, 2011. An additional \$500,000 will be allocated over five years for broadband planning activities.

Alaska is one of six states to receive grants in this round of awards. Overall, all 50 states and five territories have applied to participate in this program, with 15 awards already being distributed.

As of October, more than \$1.5 billion in ARRA funds have been dedicated to Alaska. It is estimated that this investment will help create or sustain some 8,000 jobs. In September 2009, Sen. Begich released a status report of the Recovery Act in Alaska; it is accessible [here](#). Begich was a strong supporter of the legislation in the Senate and voted for its passage.

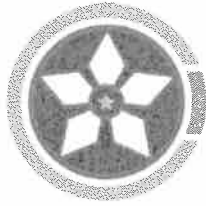
Additional information on the American Recovery and Reinvestment Act is available here:
<http://www.recovery.gov/>

The Broadband Steering Committee will be supported and staffed by the Denali Commission. The Broadband Steering Committee (Committee) will be the first of its kind in Alaska. The Committee will be comprised of State, Federal, non-profit, and telecommunications providers. The following is the proposed membership of the committee:

- Denali Commission's Federal Co-Chair (Chair)
- Governor's Representative
- Alaska State Legislature's Representative
- Department of Commerce, Community and Regional Affairs Representative
- Regulatory Commission of Alaska Representative
- University of Alaska Representative
- Alaska Communication's System Representative
- General Communications Incorporated Representative
- AT&T Alascom Representative
- Alaska Telephone Association Representative (Local Exchange Carrier Organization)
- Alaska e-Health Network Representative
- USDA Alaska State Director Representative

The Committee representative will be appointed by each of the organizations named. Other organizations may be added to the Committee as deemed necessary by the Committee. The Federal Co- Chair of the Commission will chair and set agendas for the Committee. Committee participation will be voluntary and expenses of time, travel, per diem etc, will be the responsibility of each member organization and will not be reimbursable with Commission or NTIA funding requested in this proposal. The Committee will meet at a minimum of 4 times per year (quarterly) at the call of the Chair.

-Jennifer Robinson
Denali Commission



CONNECT ALASKA™

The twenty-first century is presenting Alaska with a new challenge in preserving and improving its beloved way of life. High-speed Internet connection is a modern lifeline to quality jobs, information, and vital services ranging from interactive telemedicine to higher education. Yet, thousands of Alaska residents still have no access to quality, high-speed broadband.

The Last Frontier state is now taking a huge step forward to fix this problem with an important initiative to expand broadband access to areas where it doesn't exist and enhance the quality of service in areas that are already served.

The Denali Commission has enlisted Connected Nation, through its subsidiary nonprofit Connect Alaska, to undertake a comprehensive broadband data collection and mapping initiative as provided by the July 1, 2009 Notice of Funds Availability (NOFA) from the National Telecommunications and Information Administration (NTIA).

The U.S. Department of Commerce's NTIA has awarded the Denali Commission approximately \$1.4 million for broadband data collection and mapping activities over a two-year period and almost \$500,000 for broadband planning activities over a five-year period in Alaska, bringing the total grant award to approximately \$1.9 million.

Connect Alaska will work to produce a broadband map illustrating the broadband service availability down to the street level. Connect Alaska, in collaboration with the state's broadband providers, will update these maps on a routine basis to reflect "real-time" broadband availability. Maps will be accessible to the general public via the Connect Alaska website, www.connectak.org. In addition, local residents will have the opportunity to provide feedback for the initiative on the website.

Connectak.org will allow broadband subscribers to test their connection speed and describe how broadband impacts their lives. Those who do not currently have broadband access can add their name and address to a secure database of households that would like to subscribe if given the opportunity.

As part of this mapping initiative, Connect Alaska will be implementing a new interactive mapping tool for viewing, analyzing, and validating broadband data. Called BroadbandStat, the new interactive mapping platform is a multi-functional, user-friendly way for local leaders, policymakers, consumers, and technology providers to devise a plan for the expansion and adoption of broadband. BroadbandStat was developed by Connected Nation in conjunction with ESRI, the world market leader in geographic information system (GIS) software.

The data collected from the Connect Alaska initiative will be displayed in the national broadband map, which will help inform policymakers and provide consumers with improved information on broadband Internet services available in the United States. This national map is scheduled for release in February 2011.

For more information contact us online at info@connectak.org.

www.connectak.org

Connected Nation and Connect Alaska are registered trademarks of CN Financial Services, LLC.



Connect Alaska Broadband Mapping Initiative: Provider Briefing

Denali Commission Offices
Anchorage, AK
December 17, 2009

Brent Legg
Director, Stakeholder Relations & Development
blegg@connectednation.org

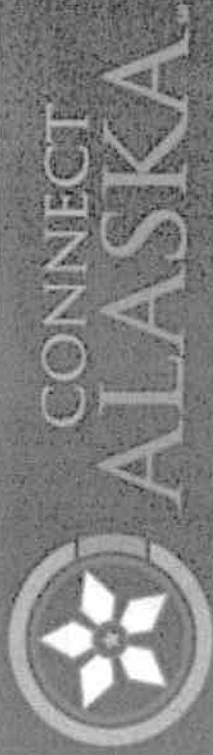
Lisa Araya
Stakeholder Relations Manager - Alaska
laraya@connectednation.org



Welcome & Introductions

Connected Nation's Staff:

- **Tom Ferree – Chief Operations Officer**
- **Brent Legg – Director, Stakeholder Relations & Development**
- **Lisa Araya – Stakeholder Relations Manager, Alaska**
- **Shauna McCarthy – Stakeholder Relations Associate, Alaska**
- **Ernie Wood – Executive Director, Strategic Project Office**
- **Chip Spann – Director, Engineering and Technical Services**
- **John Determan – Technical Engineering Analyst**
- **Wes Kerr – Senior Manager, GIS Services**
- **Ashley Littell – Manager, GIS Services**
- **Jessica Ditto – Communications Director**
- **Eric Mills – General Counsel**



Who We Are and Why We Exist....

Connect Alaska is a subsidiary non-profit of Connected Nation, a national 501(c)(3) organization with primary offices in Washington, DC and Bowling Green, KY. Connected Nation's mission is to generate and support economic development by:

- 1) expanding broadband availability and
- 2) increasing broadband adoption rates

Connect Alaska has partnered with the Denali Commission to launch a broadband mapping project in Alaska that will be funded by NTIA's State Broadband Data & Development Grant Program.

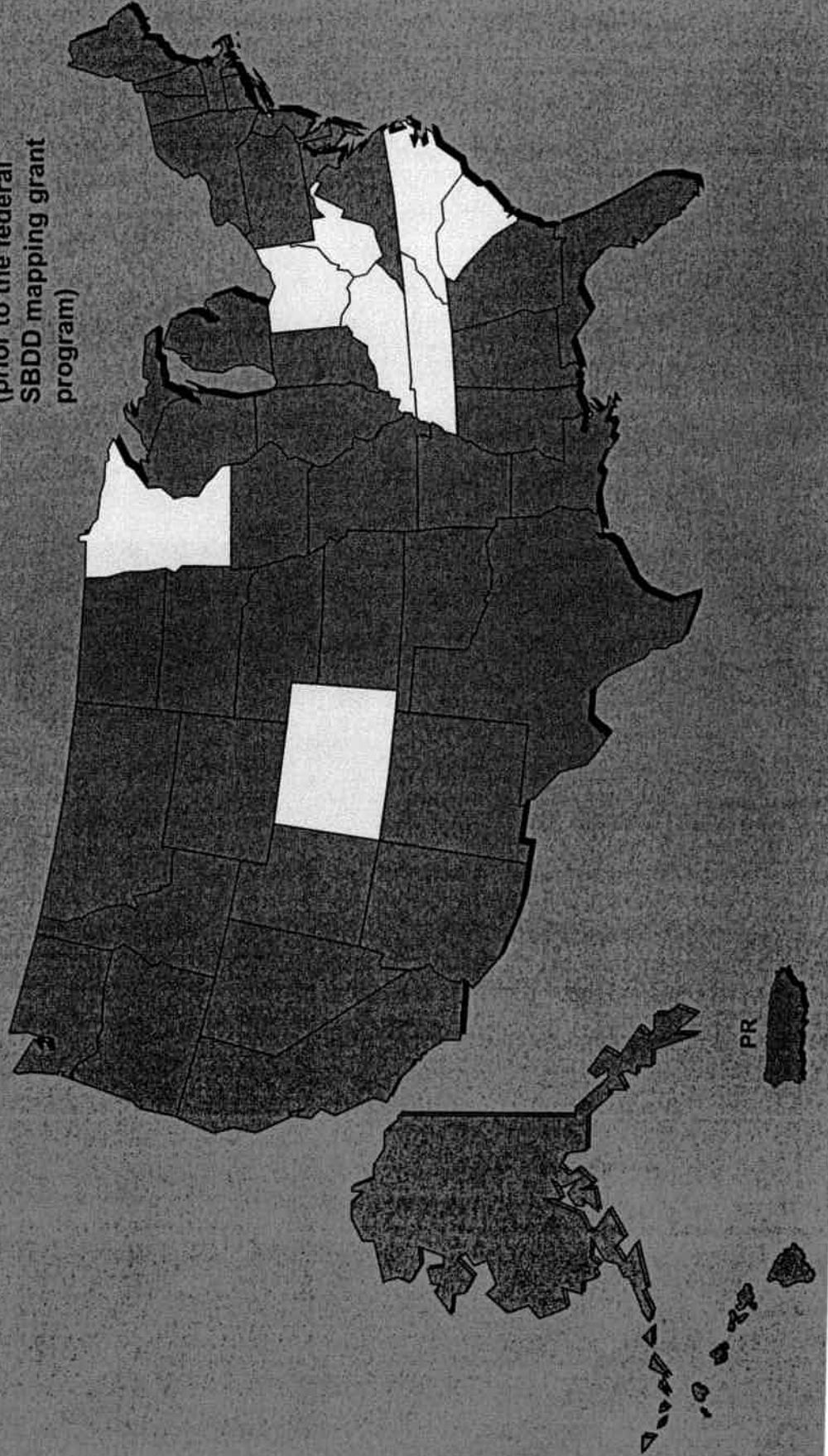
Connect Alaska's goal is to form strong working relationships with all broadband providers within the state to create and maintain Alaska's first detailed maps of broadband coverage and accurately pinpoint any remaining gaps in broadband availability.



CONNECT
ALASKA

Connected Nation's Mapping Projects 2005-2009


□ CN Mapping Projects
(prior to the federal
SBDD mapping grant
program)

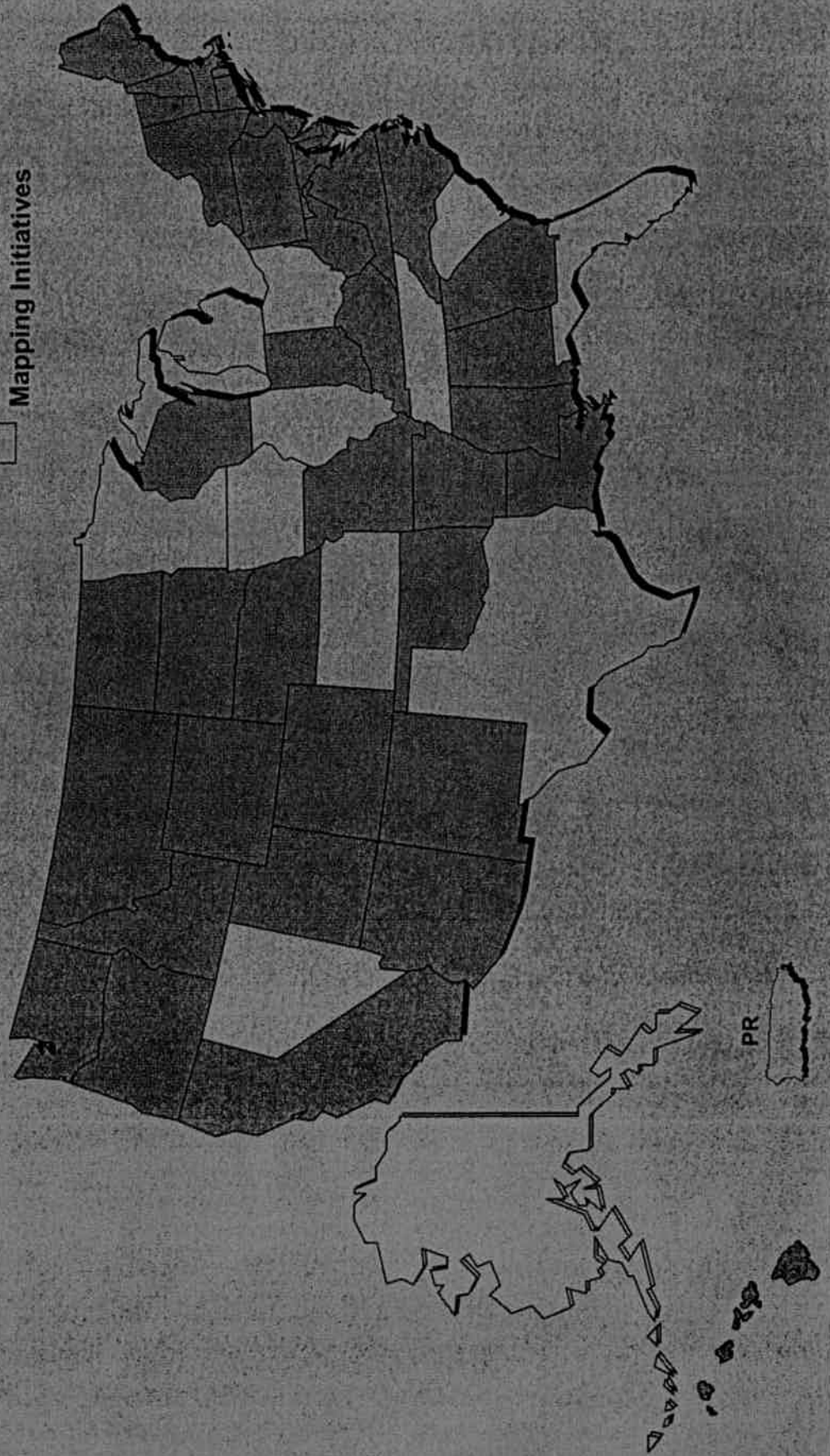




CONNECT
ALASKA

Connected Nation's Work Under NTIA's Mapping Grant Program

 CN NTIA-Funded
Mapping Initiatives





The State Broadband Data and Development Grant Program (SBDD): Broadband Mapping

- The federal Broadband Data Improvement Act (P.L. 110-385) created the “State Broadband Data & Development Grant Program” (SBDD) that was funded by Congress in the American Recovery and Reinvestment Act at \$240 million.
- The SBDD Grant Program provides funds to states to create and maintain broadband maps for a period of at least two years (up to five years, pending funding availability)
- The Denali Commission was named by Gov. Sean Parnell as Alaska’s “single designated entity” to receive SBDD grant funds.
- The Denali Commission chose to partner with Connected Nation to undertake the mapping program.
- An application was filed with NTIA on August 14th.
- A grant award decision from NTIA was expected by September 30.
- A grant award announcement was made for Alaska on November 30.



Broadband Mapping in Alaska:

Next Steps

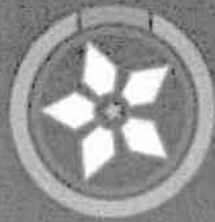
1. Connect Alaska project team members will make direct contact with each identified broadband provider within the state.
2. Connect Nation legal staff will facilitate a discussion on the signing of a non-disclosure agreement with each provider, using a sample NDA (available at www.connectak.org under the “broadband providers” tab) as a starting point for those discussions.
3. Once a NDA is agreed upon and is executed, Connect Alaska project team members will work with each provider to transfer data to us in a usable format.
4. Connected Nation’s GIS division will process the transferred data and create a visual depiction of broadband service availability for each provider. Each provider will have an opportunity to approve the generated map before the information is applied to the aggregated statewide map.
5. Once the map is complete, it will be made available to the public via an interactive address-searchable online application called “BroadbandStat” at www.connectak.org



Broadband Mapping in Alaska:

Next Steps - Continued

6. Per the federal Notice of Funds Availability (NOFA), the raw data collected will be supplied to NTIA at the Census Block level of detail. NTIA hasn't yet adjusted the data submission deadlines, so a "substantially complete" data set is currently due to NTIA by February 1, 2010, with a final data set to be submitted by March 1, 2010.
7. The maps will be continuously updated for a period of at least two years (up to five years, pending funding availability).
8. Our Engineering & Technical Services Division, along with our Research Division, will undertake an ongoing process of validating the coverage information reflected on the maps.
9. The public will also have an opportunity to provide feedback on the maps and report inaccuracies at the www.connectak.org web site.



CONNECT
ALASKA

BroadbandStat: The Nexus Between Mapping and Planning

- The BroadbandStat web application represents the nexus between mapping current broadband availability and planning for the future.
- BroadbandStat is a powerful, yet user-friendly and customizable tool that will allow state leaders & the public to:
 - Search for and identify broadband service at a specific address, including available speeds and service providers
 - Understand & track broadband deployment over time
 - Analyze and prioritize unserved and underserved areas using population and household density information
 - Track ARRA-funded broadband projects
 - Build and evaluate scenarios to help score and prioritize future broadband infrastructure proposals
 - Track broadband adoption rates and barriers to broadband adoption, community by community across the state.

Information re: \$88M Award

adn.com

Anchorage Daily News

Print Page

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Alaska to receive \$88 million for rural broadband projects

STIMULUS: Homes, businesses, hospitals and schools to benefit.By JOELLE TESSLER
The Associated Press

(01/26/10 10:44:38)

WASHINGTON -- The Agriculture Department is handing out nearly \$310 million in stimulus money to bring high-speed Internet connections to 14 rural communities around the country.

The funding includes an \$88.1 million grant and loan to United Utilities Inc. of Anchorage for middle-mile broadband service to 65 communities in the Yukon-Kuskokwim deltas and Bristol Bay regions by using fiber-optic cable and a microwave network. Middle-mile service connects the broader Internet backbone to the "last-mile" link that takes the service to a home or business.

According to Sen. Mark Begich, D-Alaska, the United Utilities project will benefit up to 9,000 households, 748 businesses, two hospitals, 63 village clinics and 72 schools.

The awards being announced Monday amount to the largest round of government funding for broadband since Congress included \$7.2 billion for high-speed networks and adoption programs in last year's stimulus bill.

The money is intended to bring jobs and economic opportunities to rural communities, poor neighborhoods and other parts of the country that are falling behind in the information age. It is also intended to pay for the network infrastructure needed to deliver telemedicine services, offer online classes and provide other applications that require a lot of bandwidth.

Including the latest round of funding, the Rural Utilities Service has doled out \$364 million for 22 broadband projects across the country. The Agriculture Department will award a total of \$2.5 billion in stimulus money for broadband programs.

The National Telecommunications and Information Administration, an arm of the Commerce Department, is handing out the remaining \$4.7 billion in stimulus funding for broadband. As of last week, NTIA had awarded roughly \$200 million in grants for 15 projects.

Applications for the next and final round of broadband funding are due by March 15.

Demand for the broadband money has been intense, far outstripping the amount available. The Commerce and Agriculture departments already have received nearly 2,200 applications requesting a total of \$28 billion.

The Anchorage Daily [News/adn.com](http://www.adn.com) contributed to this article.

Print Page

Close Window

[print](#)

USDA awarding \$310 million for broadband projects, including \$88 million for Alaska

by Joelle Tessler / The Associated Press

01.25.10 - 09:48 am

WASHINGTON - The Agriculture Department is handing out nearly \$310 million in stimulus money to bring high-speed Internet connections to 14 rural communities around the country.

The awards being announced Monday amount to the largest round of government funding for broadband since Congress included \$7.2 billion for high-speed networks and adoption programs in last year's stimulus bill.

The money is intended to bring jobs and economic opportunities to rural communities, poor neighborhoods and other parts of the country that are falling behind in the information age. It is also intended to pay for the network infrastructure needed to deliver telemedicine services, offer online classes and provide other applications that require a lot of bandwidth.

"This big batch of projects will create urgently needed jobs now and also build networks that will fuel rural economic development for years to come," said Jonathan Adelstein, who heads the Agriculture Department's Rural Utilities Service, which is awarding the money.

The awards being announced Monday include:

- an \$88.1 million grant and loan to an Alaskan telecommunications company that will build "middle mile" networks to connect 65 Eskimo towns and villages in southwestern Alaska to the Internet.
- a \$19.1 million grant and loan to a Missouri electric cooperative to build a fiber-optic network that will reach nearly 5,000 homes, businesses, public safety entities and community organizations in rural Ralls County, Mo.
- a \$3.9 million grant to a unit of TDS Telecommunications Corp. to build a digital subscriber line network to serve homes, businesses and community institutions in sparsely populated parts of Alabama.
- a \$376,000 grant and loan to a telephone company to build a WiMax network that can deliver wireless broadband connections to nearly 325 homes in northeast Iowa.

Including the latest round of funding, the Rural Utilities Service has doled out \$363.7 million for 22 broadband projects across the country. The Agriculture Department will award a total of \$2.5 billion in stimulus money for broadband programs.

The National Telecommunications and Information Administration, an arm of the Commerce Department, is handing out the remaining \$4.7 billion in stimulus

funding for broadband. As of last week, NTIA had awarded roughly \$200 million in grants for 15 projects.

Applications for the next and final round of broadband funding are due by March 15.

In the second round, the Agriculture Department will focus on projects that provide "last-mile" connections that link homes, businesses and other end users to the Internet. The Commerce Department will focus on "middle-mile" projects that connect anchor institutions such as libraries, colleges and public safety agencies. It will also award some money for computing centers in libraries, colleges and other public facilities, and adoption programs that teach people how to use the Internet.

Demand for the broadband money has been intense, far outstripping the amount available. The Commerce and Agriculture departments already have received nearly 2,200 applications requesting a total of \$28 billion.

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Press Release

GCI Subsidiary Awarded \$88 Million in Federal Broadband Stimulus Funding

01.25.10, 10:13 PM ET

ANCHORAGE, Alaska, Jan. 25 /PRNewswire-FirstCall/ -- GCI (Nasdaq: GNCMA) received notice today that the U.S. Department of Agriculture's Rural Utilities Service ("RUS") had approved United Utilities, Inc.'s application for an \$88 million loan/grant combination to extend terrestrial broadband service for the first time to Bristol Bay and the Yukon-Kuskokwim Delta ("Y-K Delta"), an area roughly the size of the state of North Dakota. United Utilities, Inc. ("UUI") is a wholly owned subsidiary of GCI.

"All of us at UUI and GCI are delighted to hear about the RUS award," said Ron Duncan, president and chief executive officer of GCI. "We are very thankful for RUS' continuing support for rural Alaska. We also deeply appreciate the support given to UUI's application by our friends and customers in Bristol Bay and the Y-K Delta and by our Governor and Congressional Delegation."

Upon completion, UUI's project, TERRA-Southwest ("TERRA-SW"), will be able to serve 9,089 households and 748 businesses in the 65 covered communities. The project will also be able to serve numerous public/non-profit/private community anchor institutions and entities, such as regional health care providers, school districts, and other regional and Alaska Native organizations.

"UUI and GCI have both served the remote rural communities of Alaska for decades. No one understands better the cost and latency constraints of satellite networks in an era where broadband Internet service has become a necessity for residential, business, non-profit, and government end-users," said Duncan. "This award is a once-in-a-generation opportunity to close the digital divide for 65 remote rural Alaska communities."

The RUS award - consisting of a \$44.2 million loan and a \$44.0 million grant - will be made under the RUS Broadband Initiatives Program ("BIP") established pursuant to the American Recovery and Reinvestment Act. The award will not increase GCI's consolidated capital expenditure plan. The grant portion of the award will fund backbone network facilities that GCI would not otherwise be able to construct within its return-on-investment requirements. UUI expects to start work on TERRA-SW this year and complete the project by the end of 2012.

TERRA-Southwest will provide "middle mile" terrestrial broadband service to 65 remote rural communities in Bristol Bay and the Y-K Delta, including Bethel, Dillingham, and King Salmon. TERRA-SW includes the following elements:

-- DeltaNet Upgrade. UUI will upgrade the capacity of the existing DeltaNet broadband regional microwave network, which serves 43 communities in the Y-K Delta. -- Bristol Bay Regional Network. UUI will deploy a broadband hybrid fiber optic/microwave regional network in Bristol Bay, which in combination with the backbone network described below, will extend terrestrial broadband service to 22 Bristol Bay communities. -- Backbone Network. UUI will deploy a hybrid fiber optic/microwave backbone network that will link DeltaNet and the new Bristol Bay regional network terrestrially back across the Cook Inlet to the Internet backbone in Anchorage.

A map of the TERRA-SW deployment and a list of the communities to be served are attached.

(Photo: <http://www.newscom.com/cgi-bin/prnh/20100125/SF43610>)

GCI is the largest telecommunications company in Alaska. The company's cable plant, which provides voice, video, and broadband data services, passes 90 percent of Alaska households. GCI operates Alaska's most extensive terrestrial/subsea fiber optic network, which connects not only Anchorage but also Fairbanks, and Juneau/Southeast to the lower 48 states with a

diversely routed, protected fiber network. The company's satellite network provides communications services to small towns and villages throughout rural Alaska. GCI is in the process of constructing Alaska's first truly statewide mobile wireless network, which will seamlessly link urban and rural Alaska for the first time in the state's history.

A pioneer in bundled services, GCI is the top provider of voice, data, and video services to Alaska consumers with a 70 percent share of the consumer broadband market. GCI is also the leading provider of communications services to enterprise customers, particularly large enterprise customers with complex data networking needs. More information about the company can be found at www.gci.com.

The foregoing contains forward-looking statements regarding the company's expected results that are based on management's expectations as well as on a number of assumptions concerning future events. Actual results may differ materially from those projected in the forward looking statements due to uncertainties and other factors, many of which are outside GCI's control. Additional information concerning factors that could cause actual results to differ materially from those in the forward looking statements is contained in GCI's cautionary statement sections of Form 10-K and 10-Q filed with the Securities and Exchange Commission.

Bristol Bay Region YK Delta Region Mekoryuk Aleknagik Akiachak Mt. Village Clark's Point Akiak Napakiak Dillingham Alakanuk Napaskiak Ekwok Aniak Newtok Goodnews Bay Anvik Nightmute Iguigig Atmautluak Nunam Iqua Iliamna Bethel Nunapitchuk King Salmon Chefornak Oscarville Kokhanok Chevak Pilot Station Koliganek Chuathbaluk Pitka's Point Levelock Eek Quinhagak Manokotak Emmonak Russian Mission Naknek Grayling Scammon Bay New Stuyahok Holy Cross Shageluk Newhalen Hooper Bay St. Mary's Nondalton Kasigluk Toksook Bay Pedro Bay Kipnuk Tuluksak Platinum Kongiganak Tuntutuliak Port Alsworth Kwethluk Tununak South Naknek Kwigillingok Upper Kalskag Togiak Lower Kalskag Mekoryuk Twin Hills Marshall Mt. Village

SOURCE GCI

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NEWS RELEASE

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Washington, DC 20250-1300 • Voice: (202) 720-4623 • Email: oc.news@usda.gov • Web: <http://www.usda.gov>

Release No. 0032.10

Contact:
Office of Communications (202) 720-4623

AGRICULTURE SECRETARY VILSACK ANNOUNCES \$310 MILLION IN RECOVERY ACT FUNDS FOR RURAL BROADBAND PROJECTS

In total, \$313.5 million for Middle Mile and Last Mile Projects Will Bring Broadband Service To Rural Customers

WASHINGTON, January 25, 2010 – Agriculture Secretary Tom Vilsack today announced the selection of fourteen Recovery Act Broadband Infrastructure projects that will receive \$309,923,352 through funding made available by the American Recovery and Reinvestment Act. An additional \$3,551,887 in private investment brings the total to \$313,475,239. Altogether, Congress awarded USDA \$2.5 billion in Recovery Act funding to help bring broadband services to rural un-served and underserved communities.

"The Obama Administration will strengthen communities in rural areas through these broadband investments and provide employment opportunities, building a solid foundation for future economic growth," Vilsack said. "The awards for these broadband projects will support anchor institutions – such as libraries, public buildings and community centers – that are necessary for the viability of rural communities."

In rural Burleigh County, N.D., for example, the BEK Communications Cooperative has been selected to receive a \$2 million grant and \$2 million loan with an additional \$2 million in leveraged funds. The company will expand the existing system to offer fiber-to-the-premises service to more than 540 homes and anchor institutions that are currently underserved. The existing system provides service to 53 percent of the population in the area, and among the current users, 22 percent derive household income from the Internet. This expansion is expected to stimulate economic growth by bringing on new users.

Funding of individual recipients is contingent upon their meeting the terms of the loan, grant or loan/grant agreement. Below is a complete list of recent Recovery Act Broadband award recipients by state:

Alaska

- Southwestern Alaska, United Utilities, \$43,982,240 grant and \$44,158,522 loan. The funding will provide middle mile connectivity to 65 communities.

Alabama

- Butler, Butler Telephone Co., Inc., \$3,892,920 grant. The funding will provide high speed DSL broadband service to remote, unserved households within its rural service territory. The system is being built so that it can be easily upgraded to accommodate future services.

California

- San Joaquin, Tranquillity, and Fresno, Audeamus, \$2,741,505 grant and \$2,741,505 loan. The proposed project is a fiber-based broadband infrastructure for the unserved and underserved communities in this service area. A last-mile project, it will provide access to approximately 1,500 households, local businesses and anchor institutions in the communities.

Iowa

- Meriden and Archer, C-M-L Telephone Cooperative Association, \$1,519,225 grant and \$1,519,225 loan, \$1,525,315 in matching funds. Funding will provide services via a fiber optic network to rural communities with high speed internet exceeding 20 Mbps.
- Bennett, Delmar, and Lowden, F & B Communications, Inc., \$1,609,162 grant and \$1,628,588 loan. Funding will provide services via high speed fiber optic network with speeds exceeding 20Mbps. System will allow for expansion at a future date.
- Springbrook, LaMotte Telephone Company, \$187,815 grant, and \$187,815 loan. The funding will provide services from a 300-foot tower and Wi-Max installation for wireless broadband service in the surrounding area.

Kansas (1% of the network is to be built in Nebraska)

- Western Kansas, Rural Telephone Service Co., Inc., \$49,588,807 grant and \$51,612,842 loan. Funding will provide service in an area 99.5 percent unserved/underserved and provide a rural infrastructure required for economic stability, education and healthcare. The company is a cooperative and RUS partner on 32 other projects. It leads a team of seven companies with this shovel-ready project.

Tennessee (1% of the network is to be built in Kentucky)

- Northern Tennessee, North Central Telephone Cooperative, Inc., \$24,715,709 grant and \$24,964,000 loan. The funding will provide the necessary infrastructure to provide advanced voice, video, and data services that exceed 20Mbps to remote and rural communities in the service area.

Louisiana

- Morehouse Parish, Northeast Louisiana Telephone Company, Inc., \$4,359,000 grant and \$8,124,600 loan. Funding will provide an active Ethernet system with symmetrical speeds of 20 Mbps. The system will be using buried fiber to the premise.

Missouri

- Ralls County, Ralls County Electric Cooperative, \$9,548,908 grant and \$9,548,909 loan. Funding for this project will provide a fiber optic network to residential and commercial members and the underserved safety and anchor agencies in the service area. This is a State of Missouri demonstration project and non-proprietary data will be shared.

North Dakota

- Burleigh County; BEK Communications Cooperative, \$1,986,473 grant and \$2,016,571 loan; \$2,016,572 in leveraged funds. The funding will provide fiber-to-the-premises broadband service to underserved homes and anchor institutions. This will aid business growth and support public safety in rural areas highly dependent on Internet business income.
- Traill County; Halstad Telephone Company, \$2,027,600 grant and \$2,027,600 loan; \$10,000 in leveraged funds. The funding will provide fiber-to-the premises broadband service to unserved homes and businesses in Traill County.

Oregon

- Marion County, Gervais telephone Company, \$314,430 grant and \$314,430 loan. This project extends Gervais Telephone Company's existing fiber network by building out from the nearest fiber splice point through the funded service area. This project will provide broadband connectivity to residential and business end users, as well as to four anchor institutions.

Virginia

- Alleghany County, NTELOS Telephone Inc., \$8,062,088 grant and \$8,062,088 loan. The funds will provide broadband infrastructure to unserved and underserved homes, businesses and critical community institutions in this rural county. A fiber-based project.

it will enable work-from-home jobs and foster economic development, and improve health, education and public safety services to the county citizens.

President Obama signed The American Recovery and Reinvestment Act of 2009 into law on Feb. 17, 2009. It is designed to jumpstart the nation's economy, create or save millions of jobs and put a down payment on addressing long-neglected challenges so our country can thrive in the 21st century. The Act includes measures to modernize our nation's infrastructure, enhance energy independence, expand educational opportunities, preserve and improve affordable health care, provide tax relief, and protect those in greatest need.

More information about USDA's Recovery Act efforts is available at www.usda.gov/recovery . More information about the Federal government's efforts on the Recovery Act is available at www.recovery.gov .

#

USDA is an equal opportunity provider, employer and lender. To file a complaint of discrimination, write: USDA, Director, Office of Civil Rights, 1400 Independence Avenue, SW, Washington, DC 20250-9410 or call (800) 795-3272 (voice), or (202) 720-6382 (TDD).

#

Broadband USA Applications Database

Applicant Name: United Utilities, Inc.

Project Title: TERRA-SW: Terrestrial Broadband In Southwestern Alaska

Project Type: Middle Mile

Executive Summary

Opportunity. TERRA-Southwest (TERRA-SW or Project) will, for the first time, deliver middle mile terrestrial broadband service from the Internet backbone in Anchorage to 65 economically challenged rural communities (64 unserved and 1 underserved) in the remote Yukon-Kuskokwim Delta (Delta) and Bristol Bay regions of southwestern Alaska (Service Area). The Project will dramatically expand communications options for all end-users; improve crucial telemedicine and distance learning services; support private/public economic development efforts; and enhance the operations of government, tribal, and non-profit entities. TERRA-SW builds directly on the success of DeltaNet, an RUS-funded project in the Delta. See videos at success.gcimbs.net. Service Area. The Service Area is a vast wilderness (roughly the size of North Dakota) with a harsh subarctic climate. Residents are predominantly Yup'ik Eskimo Alaska Natives. Most residents live in a mixed cash/subsistence economy, depending on government/non-profit employment, government transfer payments, and subsistence hunting, fishing, and gathering activities. Year-round private sector jobs are scarce, as are most of the amenities that urban Americans take for granted. The communities to be served by TERRA-SW are scattered across this huge landscape without the benefit of a road system. Inter-community transportation is limited to airplanes, boats, and snowmobiles. As a result, residents rely on telecommunications for basic commerce and essential public services such as healthcare and education. UUI has received letters of support for the Project from designated community leaders in each of the communities to be served. Broadband System. Today, the Service Area is linked to the Internet backbone primarily by two private satellite networks. Although satellite service plays a crucial role in providing telecom services in rural Alaska, the latency inherent in satellite service limits its usefulness in next-generation Internet/computer/telemedicine/distance learning applications. In addition, the high cost of satellite service makes it a problematic platform for expanding affordable broadband Internet service to end-users. By deploying a hybrid fiber-optic-and-microwave broadband middle mile network, UUI will bypass the limitations of satellite service. TERRA-SW will maximize use of terrestrial routes to minimize the possibility of lengthy, expensive-to-repair service outages caused by breaks in submarine fiber optic cable locked under sea ice in Bristol Bay and the Bering Sea for up to six months a year. TERRA-SW will not perpetuate the digital divide by providing broadband only to regional centers like Dillingham while ignoring the villages where broadband service is needed the most. Instead, the Project will provide broadband among all communities (regional centers and villages) within the Service Area and between those communities and the Internet backbone in Anchorage. TERRA-SW will serve 43 communities that currently have regional terrestrial broadband service through DeltaNet but depend on satellite for their connection to the Internet backbone and 22 communities that now rely entirely on satellite for all their

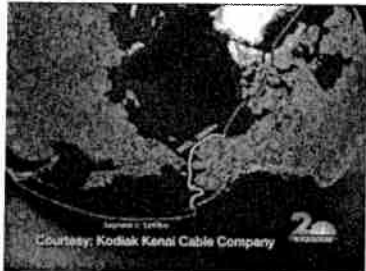
connectivity. These 65 communities represent 35% of the total number of satellite-served rural communities in Alaska. Households, Businesses, and Other Entities Passed. TERRA-SW will pass 9,089 households and 748 businesses in the 65 communities. The Project will also pass numerous public /non-profit/ private community anchor institutions and entities, most of which are already customers of UUI and its affiliates, and many of which have been involved in scoping and planning TERRA-SW. • Regional Health Care Providers: Yukon Kuskokwim Health Corporation and Bristol Bay Area Health Corporation (2 regional hospitals and 63 subregional and village clinics). • School Districts: 11 districts with 72 schools. • Alaska Native Corporations (established by Congress to implement the Alaska Native Claims Settlement Act): Bristol Bay Native Corporation and Calista Corporation (regional corporations for Bristol Bay and the Delta); Choggiung Limited (Dillingham), Bethel Native Corporation (Bethel) and 61 other Native village corporations. • Alaska Native Organizations and Tribal Governments: Association of Village Council Presidents (representing 56 tribes) and Bristol Bay Native Association (representing 31 tribes) and their affiliated organizations. Proposed Services. TERRA-SW will offer middle mile bandwidth at broadband speeds to carriers and other customers. Pricing will be built around the purchase of distance-insensitive, symmetrical 1Mbps circuits. All endpoints in the Project will have identical pricing, and capacity increases will be available in 1Mbps increments. To the extent that its customers require, the Project may also provide dedicated circuits. Non-Discrimination and Interconnection Obligations. As a middle mile provider, UUI will operate TERRA-SW in conformance with the FCC's Internet Policy Statement and the other NOFA-required Nondiscrimination and Interconnection Obligations. The Project will enable end-users to access the public Internet backbone while providing managed services for telemedicine, distance learning, and other applications. UUI will offer wholesale and retail services to carriers and other customers that wish to provide or use broadband and other services in Service Area communities. UUI will negotiate in good faith with any party making a bona fide request for interconnection. Qualifications of Applicant. UUI has been a trusted provider of local telephone and other telecom services in the Delta for more than 30 years. In 2004, UUI began the construction of DeltaNet, a \$50 million regional broadband microwave network that currently serves communities throughout the Delta. The project has been an across-the-board success, operationally and financially. TERRA-SW will leverage that success (and the \$30 million in RUS-provided DeltaNet loans) by linking DeltaNet back to the Internet backbone. DeltaNet proved UUI's ability to successfully design, engineer, construct, and operate major broadband infrastructure projects. UUI's president, Steve Hamlen, leads a cohesive team with deep experience in building and operating rural telecom infrastructure and in working collaboratively with government, Native corporations, and tribes. UUI's expertise is complemented by that of its parent GCI, which is Alaska's largest telecom provider with \$575 million in revenues and \$171 million in EBITDA in 2008. TERRA-SW will require the construction and operation of submarine fiber, buried and pole-line terrestrial fiber, and microwave facilities in some of the most challenging environments in the world. The UUI team has the expertise and experience necessary to make the Project a success for the residents of the Service Area and the Federal broadband stimulus program. GCI will stand behind UUI's commitments and make available whatever additional resources are required to ensure the technical and financial feasibility of TERRA-SW. In fact, GCI is so certain of the Project's success that it will guarantee any loan made to UUI by RUS. Overall Infrastructure Cost. The overall cost of TERRA-SW is \$88,140,760. In light of the history of major Alaska telecom projects that failed because of over-optimistic financial projections, UUI has not adopted a "build it and they will

come” strategy in proposing the Project. Rather, UUI has secured GCI’s commitment to purchase middle mile capacity to carry GCI’s existing long-haul voice and data traffic and serve the needs of GCI’s commercial residential, and critical community facility customers in the Service Area. The GCI purchase commitment, in itself, guarantees the financial feasibility of TERRA-SW. Overall Expected Subscriber Projections. 100% of the economically feasible households and businesses in the Delta/Bristol Bay regions will be covered by TERRA-SW. To maximize the benefit of the Project to all end-users in the Service Area, UUI has secured GCI’s commitment to deploy last mile broadband service in every community served by the Project. Within the next 5 years, broadband subscribership is estimated to grow to approximately 7,200 residential end-users (80% penetration) and approximately 185 commercial end-users (25% penetration). All of the critical community facilities in the Service Area (approximately 130 in number) are expected to receive broadband service. Number of Jobs Estimated to Be Created or Saved. The construction of TERRA-SW will create at least 80 direct jobs in the Service Area. Additionally the manufacture and transportation of the equipment required by the Project will create an additional 25 additional jobs. The resulting economic development in the Service Area will create or save an additional 180 jobs in critical community facilities and local service providers. Very importantly, TERRA-SW will help preserve the Yup’ik culture and a unique way of life by encouraging economic development in the Service Area, thus allowing residents to obtain jobs while continuing to live in their ancestral home.

Arctic Link and Northern Fiber Optic Link



Alaska company announces undersea cable link from Japan to U.K.



Kodiak Kenai Cable Co. announced Wednesday a Japan-U.K. undersea cable. (Courtesy Kodiak Kenai Cable Co.)

by Christine Kim
Wednesday, January 13, 2010

ANCHORAGE, Alaska -- The Kodiak Kenai Cable Co. announced the first undersea fiber optic route that links Japan to the United Kingdom by going through the Arctic Ocean.

It's called the Arctic Link, and it will cross two oceans, three seas and connect three continents.

The network is comprised of three segments: From Tokyo to Dutch Harbor, to Prudhoe Bay to the United Kingdom.

The link totals 10,000 miles.

The \$1.2 billion project goes through the Northern Fiber Optic Link, a separate project that's already underway along Alaska's western coastline.

Currently, communication takes place with routes that go through Russia or the Middle East, which the company says takes much longer than the Arctic Link.

"This system really presents an option for a path connecting Europe to Asia that is shorter, provides the latency, and but it also provides a very stable route to geographically stable countries," said Guy Houser, a consultant for Kodiak Kenai Cable Co.

The Arctic Link project is scheduled to begin in 2011.

Contact Christine Kim at ckim@ktuu.com



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HOME NEWS FEATURES MONEY CONTACT JOBS

Web posted Friday, January 29, 2010

Fiber project to link Asia, Europe via Alaska

By Margaret Bauman
Alaska Journal of Commerce

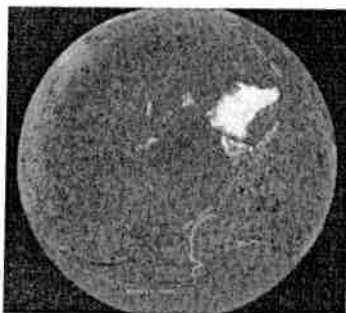


Photo courtesy of Kodiak-Kenai Cable Co.

A \$1 billion-plus fiber-optic cable project announced by two Alaska Native village corporations and a multinational firm stands to link Asia with Europe via Alaska, while bringing reliable high-speed Internet to dozens of rural Alaska villages.

The ArcticLink project, which involves laying 10,000 miles of undersea fiber-optic cable, is the answer to the fast-growing telecommunications demands created by the globalized economy, said Walt Ebell, chief executive officer of the Kodiak-Kenai Cable Co.

"Creating this international broadband expressway through the Arctic will allow unprecedented capacity, unmatched security and reliability, and a dramatic latency reduction," Ebell said, in a presentation announcing the project Jan. 13 in Anchorage. "Connecting these three continents directly is truly historic."

The undersea fiber optic ArcticLink would utilize a politically stable route that will run from Japan through the Arctic region to the United Kingdom.

About 100 people are already working on the project. Construction is to begin in 2011 and be completed by 2013, assuming that a sufficient number of customers and financing is lined up, officials said.

To develop ArcticLink, KKCC, owned by the Old Harbor Native Corp. and Ouzinkie Native Corp., have joined with KhaNNet, a member of the Khanjee family of companies to form the Arctic Cable Co. LLC.

Khanjee is the holding entity for investment and development projects of Khanjee USA LLC. Its subsidiaries and affiliates hold interests in various U.S. and multinational joint ventures ranging from major infrastructure projects and real estate to hospitality, and trading. Incorporated in Delaware and headquartered in the Washington, D.C., area, Khanjee and its subsidiaries and affiliates have a presence in 25 countries.

ACC, in turn, will lead the international consortium to finance, design, engineer, build and operate the undersea project.

"We are very confident of it," said Ike Icard, a consultant for the project. "We are partnered with a very strong, very determined company, and we have identified a number of carriers who are very enthused about it, so we feel good about it."

The project would utilize four 40 gigabits per second subsea fiber pairs, providing four times the existing capacity per wavelength, for a combined system capacity of 6.4 terabits per second.

It would offer record-setting latencies — a measure of time delay — of less than 90 milliseconds, a nearly 50 percent reduction compared to existing preferred Asia-Europe latency times, and use a politically stable and secure route through Japan, the United States, Canada, Greenland and the United Kingdom.

ArcticLink also could interface with the proposed Northern Fiber Optic Link, or NFOL, an undersea fiber optic project to bring high-speed telecommunications and broadband service across Western Alaska. The NFOL, currently being developed by KKCC, would

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connect all of Southwest, Western and Northern Alaska with the existing Kodiak Kenai Fiber Link.

An application for federal stimulus funding is pending and, if approved, the NFOL would deliver high-speed, high-capacity, fiber optic-based broadband service to potentially dozens of communities in Western Alaska.

"The near-term economic benefits will be enormous, while the long-term capabilities enabled by the ArcticLink will immensely improve international communications," Ebell said.

Even if the federal stimulus money were rejected, the Asia-Europe project, with landing points at Dutch harbor and Prudhoe Bay, would still move forward, consultants on the project said.

KKCC has been working closely with Tyco Electronics Subsea Communications LLC to include specially designed four-port branching unit interfaces as part of the NFOL system to monitor and support climate and marine research.

The inclusion of this new type of branching unit in the system design has been encouraged by representatives of the commercial fishing industry, the National Oceanic and Atmospheric Administration, the U.S. Geologic Survey, the U.S. Coast Guard, the Arctic Research Commission, the Interagency Oceans Observing System, the Alaska Ocean Observing System, the University of Alaska and the Alaska Federation of Natives.

The Kodiak-Kenai Cable Co., formed in 2001 by the Old Harbor Native Corp., with Ouzinkie Native Corp. as a minority investor, is the owner and operator of the Kodiak-Kenai Fiber Link, a submarine fiber optic telecommunications system connecting Kodiak Island and the Kenai Peninsula with Anchorage.

Landing points are located at Anchorage, Kenai, Homer, Kodiak and the Alaska Aerospace Development Corp.'s launch complex in Narrow Cape and Seward.

The system minimizes exposure of the Turnagain Arm communication corridor to earthquakes, landslides or terrorist acts. It also connects schools, industry and commerce to the world with real-time broadband Internet.

The benefits of this cable system over existing transmission media include greater reliability, secure transmission, more capacity and high-speed access, free of delay problems. Improved telecommunication delivery enhances economic opportunities throughout Alaska.

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HOME NEWS FEATURES MONEY CONTACT JOBS

Web posted Friday, August 28, 2009

Cable company aims to bring broadband to rural Alaska

By Margaret Bauman
Alaska Journal of Commerce

Backers of an ambitious plan to bring broadband to more than 150 rural Alaska communities are hitching their hopes on a substantial federal economic stimulus package.

Kodiak Kenai Cable Co.'s plan for the Northern Fiber Optic Link will cost some \$300 million. The communications firm hopes to package loans and grants, including funding from the broadband portion of the American Recovery and Reinvestment Act, to capitalize the project, said Ike Icard, of Great Pacific Cable, the firm helping with the engineering design of the system.

Once completed, it will be self-supporting in terms of operations, Icard said.

A decision on which broadband proposals will share in that funding is expected by Nov. 4, and if all goes well, the entire system could be in place by the fourth quarter of 2011, Icard said.

The Northern Fiber Optic Link would extend the 600-mile Kodiak Kenai Fiber Link system from Kodiak Island to the Aleutian Islands and Western Alaska, with landing points in King Cove, Unalaska/Dutch Harbor, Naknek/King Salmon, Dillingham, Bethel, Nome, Kotzebue, Barrow and Prudhoe Bay/Deadhorse.

Capacity would be made available by KKCC to telecommunications carriers on a competitively neutral basis at equal pricing.

Improved Internet and telecommunication services would enhance educational and economic opportunities for the rural communities and would enable real-time remote sensing and other advanced capabilities for environmental research, KKCC officials said.

The design exceeds the region's current capacity requirements and provides capacity to accommodate future growth. The system also is projected to repay a portion of the cost of construction for future use in building out broadband capacity, the company said.

Anchorage businessman and former state legislator Ethan Berkowitz, who is also a member of the project team, said he is optimistic about funding because the project stands to benefit 25 states, including Alaska, through vendor and sub-contractor relationships.

This is why the project has the support not only of the Alaska congressional delegation, but other states as well, including New Jersey, home of Tyco Electronics, the only U.S. producer of marine cable, he said.

The federal stimulus money would go into buying the cable itself, and 25 states would have a hand in that portion building the cable, putting it on ships and so forth, Icard said. The project is also expected to add at least 6,000 jobs to the economy nationwide, he said.

Once completed, the project would promote Internet networking capabilities to help strengthen the economy and create new jobs.

Meanwhile there is an ongoing process, Berkowitz said.

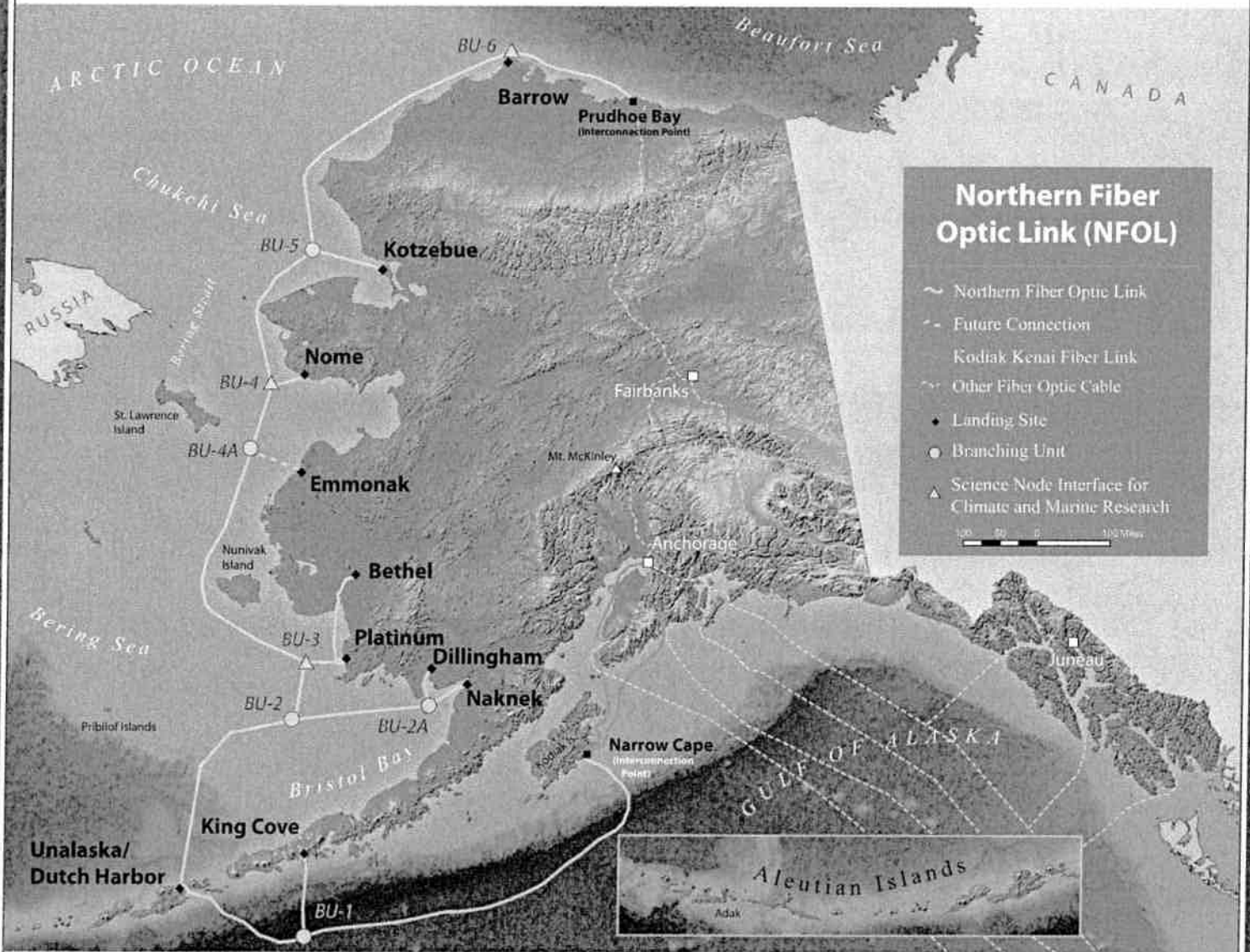
"This is phase one of the application process. Phase two will be additional information required and due diligence. This is a very big project. We have largely completed the preliminary engineering. Under the stimulus program, they (the federal government) want the project substantially completed within two years and the project completed in three years."

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NORTHERN FIBER OPTIC LINK

Project Overview

The Project

The Northern Fiber Optic Link (NFOL) will extend the Kodiak Kenai Fiber Link system via submarine fiber optic cable from Narrow Cape on Kodiak Island to the Aleutian Islands, Western and Northern Alaska with landing points at King Cove, Unalaska (Dutch Harbor), Naknek (King Salmon), Dillingham, Platinum, Bethel, Emmonak (future site), Nome, Kotzebue, Barrow and Prudhoe Bay (Deadhorse). When fully built out the system will provide 142 rural communities access to high speed, high-capacity broadband for the first time, thereby connecting the region's hospitals, medical clinics, schools, remote university campuses, libraries, public safety offices, U. S. Coast Guard communications sites, commerce and industry facilities, and future undersea laboratories with real-time, reliable, high speed telecommunications.

System Specifications

The NFOL will be configured as follows:

- (1) Cable Length: approximately 3,550 miles,
- (2) Trunk and Branch Configuration with eighteen segments comprised of 14 repeatered and 4 non-repeatered segments,
- (3) Two fiber pairs on each Trunk segment and 4 fiber pairs on each Branch segment,
- (4) Eleven Cable Landing Stations (CLS); BU4A with a fiber stub included for a future landing to service communities along the Yukon River,
- (5) Three Science Node Interfaces along the trunk for servicing future ocean observatories (BU3, BU4 and BU6 as denoted on the map by the yellow triangles),
- (6) Initial Operating Capacity: 52 Wavelengths, each with 10 Gbps data rate, for a capacity of 520 Gbps distributed across the eleven cable landing stations,
- (7) Full Operating Capacity; 96 Wavelengths for a capacity of 960 Gbps on each fiber pair, providing a total system capacity of 1.92 Tbps,
- (8) Design Lifetime of System: 25 years.

Broadband Loan & Grant Proposal

The Kodiak-Kenai Cable Company, LLC (KKCC) proposes to fund the construction of the Northern Fiber Optic Link by utilizing a combination RUS loan/grant or an NTIA grant. Upon completion of this new system, KKCC will lease and/or sell capacity to telecommunications carriers on a competitively neutral basis.

The Result

The NFOL will improve communications reliability dramatically and will offer last-mile providers access to high-speed broadband capacity to the largest "unserved" rural geographic area of the United States. Improved internet and telecommunications services will transform educational and economic opportunities as well as enable access to telemedicine for the rural communities connected by the System, and will enable real time remote climate and ocean sensing and other advanced capabilities for marine research. The design meets the region's current capacity requirements and provides significant additional capacity to accommodate future growth.

The Company

The Kodiak-Kenai Cable Company, LLC (KKCC) was formed in 2001 by Old Harbor Native Corporation and Ouzinkie Native Corporation to design and construct the Kodiak Kenai Fiber Link. This 600-mile marine fiber optic system was successfully completed on time and on budget and was placed in service January, 2007. The Company offers high-speed broadband capacity and services to telecommunications carriers and connectivity for the rural communities and approximately 60,000 residents of the Kenai Peninsula and Kodiak Island. KKCC is a socially and economically disadvantaged small business concern as defined under Section 8(a) of the Small Business Act.



www.northernfiberlink.info