

BEFORE THE
NATIONAL TELECOMMUNICATIONS AND INFORMATION ADMINISTRATION
WASHINGTON, D.C. 20230

In the Matter of

Notice of Inquiry – Telecommunications
Assessment for the Arctic Region

Docket No. 140925800–4800–01

COMMENTS OF ALASKA COMMUNICATIONS SYSTEMS

Alaska Communications Systems (“ACS”)¹ hereby submits these comments in response to the recent Notice of Inquiry (“NOI”) issued by the National Telecommunications and Information Administration (“NTIA”) in the above-captioned docket.²

INTRODUCTION

ACS welcomes NTIA’s inquiry into the telecommunications and broadband service needs of those living and working in the arctic region, some of the most isolated communities on the planet. As the largest incumbent local exchange carrier (“ILEC”) in Alaska, ACS offers service to approximately 70 percent of Alaska’s population, including approximately 50 communities in the Alaska Bush that are not connected to the state’s road system, power grid, or other key infrastructure. While ACS is not the ILEC for any of the arctic communities that are the focus of the NOI, it does have customers in the region and its extensive experience serving other Bush locations gives it important insights into the challenges and opportunities that those arctic communities represent. In addition, ACS is constantly exploring opportunities to grow by

¹ In these comments, “Alaska Communications Systems” signifies the operating company subsidiaries of Alaska Communications Systems Group, Inc., which include the incumbent local exchange carriers (“ILEC”) ACS of Alaska, LLC, ACS of Anchorage, LLC, ACS of Fairbanks, LLC, and ACS of the Northland, LLC; and their affiliates, ACS Wireless, Inc., ACS Long Distance, LLC, ACS Internet, LLC, and TekMate LLC.

² *Telecommunications Assessment of the Arctic Region*, Docket No. 140925800–4800–01, Notice of Inquiry, 79 Fed. Reg. 59746 (Oct. 3, 2014). The comment date has been extended to December 3, 2014, 79 Fed. Reg. 64175 (Oct. 28, 2014).

finding economically viable ways to offer its services to new customers in Alaska, including in the arctic region.

In these comments, ACS urges NTIA to focus on expanding terrestrial middle mile fiber optic transport facilities in the arctic region, which are vital to the delivery of modern broadband services. NTIA should support the availability of such transport facilities on affordable and nondiscriminatory terms, including ensuring that all competing service providers, including ILECs, have reasonable access to such publicly funded facilities. NTIA should take great care not to repeat the federal policy failures of the Broadband Initiatives Program (“BIP”), which created an unregulated, federally-subsidized monopoly in portions of Alaska by allowing the owner of BIP-funded transport facilities to foreclose competition while charging exorbitant, inflated prices for services subsidized by the Federal Communications Commission’s schools and libraries (“E-rate”) and rural health care (“RHC”) universal service support mechanisms. Such abuses harm competition and consumers, not only in Alaska, but also across the nation by creating ongoing waste of scarce universal service funds that should be put to more productive use.

Thus, above all, NTIA should give careful thought to the design of ***robust and enforceable*** open access and nondiscrimination requirements before committing further federal financial assistance to the deployment of middle mile transport networks in Alaska. Hard experience has shown the nondiscrimination and interconnection requirements of BIP were easily evaded in Alaska, enriching the state’s largest integrated provider of cable television, broadband, and telecommunications services while creating an annual drain on scarce federal universal service funding and depriving consumers of the benefits of competition. NTIA should strive for a better outcome.

DISCUSSION

A. Achieving the Objectives of the Proceeding

1. The Need for Terrestrial Middle Mile Fiber Optic Transport Facilities

Part II of the NOI observes that, “[e]ffective communications services are critical to accommodate the increase in commercial, residential, governmental, and other critical economic and social activities across arctic Alaskan communities” and that “robust communications infrastructure [and] communications networks will contribute to small business development, economic growth, and corresponding employment increases,” NOI at 59747-48. The NOI goes on to seek comment on the availability of and uses of a series of network technologies and services in arctic communities.

Today, broadband Internet access represents the best communications tool to meet the critical needs and opportunities the NOI cites. Affordable broadband services would improve economic, educational, cultural, health care, scientific research, civic, social, and other opportunities, while helping to bridge the long distances between the arctic region and the state capital and population centers of Anchorage, Fairbanks, and Juneau; the lower 48 states and the rest of the nation; and the larger world. In addition, the network infrastructure necessary to deliver broadband can also support dedicated services that businesses, researchers, and other institutions need to connect their operations in the arctic to locations elsewhere in the nation.

Particularly in the arctic and other areas of the Alaska Bush, the lifeblood of modern broadband communications is sufficient, affordable, terrestrial middle mile transport. With no Internet exchange points in the state, broadband traffic originating in the Arctic must ultimately travel by undersea cable between Anchorage and the nearest Internet exchange points in Washington and Oregon, thousands of miles to the south. Alaska has vast expanses of largely

unpopulated wilderness that give it the lowest population density in the nation: 1.2 people per square mile, less than one-quarter that of Wyoming, the next-least densely populated state.³

Although small and widely separated, most arctic communities are relatively compact, meaning that local infrastructure with short, broadband-capable loops is comparatively achievable.

The prohibitive cost of broadband services in the arctic, like other areas of the Alaska Bush, arises in securing middle mile transport with sufficient capacity to carry broadband data between these communities and Internet exchange points in the lower 48 states.

Communications satellite transport capacity is limited and costly, and latency issues make satellite suboptimal at best for two-way, real-time services. To connect to geosynchronous satellites orbiting over the equator, where possible, dishes at arctic latitudes must be larger than those elsewhere in the nation, and aimed low at the southern horizon, meaning that they are practical only for carriers or large enterprise customers.

Terrestrial fiber transport is a superior alternative. It provides reliable, low-latency broadband services with greater capacity than satellite can offer. Unfortunately, the cost of terrestrial middle mile fiber deployment is high. Based on an analysis of 100 of its fiber deployment projects completed over the past three years (totaling over 300,000 route feet), ACS has calculated that its fiber deployment costs average approximately \$23.80 per foot in areas with road and power infrastructure.⁴ Costs in the arctic region where this infrastructure is lacking will be several times higher. Given the vast distances and costs involved, without federal

³ U.S. Census Bureau, 2010 Resident Population Data, *available at* <http://www.census.gov/2010census/data/apportionment-dens-text.php>.

⁴ *Connect America Fund*, WC Docket No. 10-90, Letter from Leonard A. Steinberg and Richard R. Cameron, ACS, to Marlene H. Dortch, Secretary, FCC (filed July 30, 2013), at 12, *available at* <http://apps.fcc.gov/ecfs/document/view?id=7520936160>.

economic assistance, such service would be uneconomic and unaffordable, even in the largest arctic communities.

2. Funding Terrestrial Middle Mile Transport Facilities

The *Implementation Plan* calls for NTIA to “[d]evelop a framework that lists and prioritizes opportunities for investments in telecommunications capacity and capability, with a strong emphasis on innovative technologies with Federal, State, and international public-private partnerships.”⁵ For the reasons discussed above, ACS encourages NTIA, to the extent that federal funding becomes available to invest in arctic telecommunications facilities, to prioritize terrestrial middle mile fiber optic transport facilities. In doing so, however, it is imperative that NTIA ensure that robust, enforceable open access and nondiscrimination conditions are attached to all such investments. In many areas of Alaska, including the arctic region, where terrestrial middle mile transport facilities exist, there is only a single, monopoly owner of those facilities, funded by federal subsidies but unregulated by federal or state communications authorities and thus free to discriminate against would-be competitive service providers seeking access to limited middle mile resources. As discussed in greater detail below, the failure of past federal programs to impose enforceable open access and nondiscrimination requirements on the operator of those facilities has harmed competition and consumers alike by allowing this unregulated monopolist to extract inflated payments for telecommunications services, particularly from the FCC’s E-Rate and RHC universal service support mechanisms, while using price squeeze tactics to foreclose competition.

⁵ *Implementation Plan for National Strategy for the Arctic Region* (January 2014), at 6.

Even before any new federal financial assistance materializes, ACS recommends that NTIA coordinate its efforts in this proceeding with the FCC's ongoing reforms of its E-rate and RHC universal service support mechanisms. Inflated E-rate and RHC support payments resulting from excessive middle mile transport rates charged by Alaska's unregulated terrestrial middle mile monopolist represent a source of ongoing inefficiency in the operation of those universal service mechanisms. ACS believes that the FCC could eliminate these wasteful payments through a series of common-sense reforms that would also provide a source of funding for new middle mile facilities. These reforms include:

- Capping RHC support at a "rural rate" that represents no more than a 25 percent premium to the urban, *i.e.*, Anchorage rate. While there might be no significant difference on most tariffed services, the rate differences can be huge for non-tariffed services. For example, Internet content that may be available for \$25/Mbps in Anchorage may cost as much as \$8,000-\$10,000/Mbps in Bethel. The cap on the rural rate used in calculating RHC support will mitigate the impact of excessive middle mile charges resulting from the lack of competitive alternatives in Alaska.
- Capping E-rate support by adjusting the pre-discount rate used in rural parts of Alaska to be no more than a 25 percent premium to the rates charged urban areas (Anchorage, Alaska) for the same services. As with the RHC program, most of the disparity between urban and rural rates will be in the non-tariffed services such as Internet content.
- Requiring any provider of middle mile transport that has received any form federal support including grants, low interest loans, or any form of universal service support that was used to finance or justify the construction of the middle mile facilities, to offer capacity to other telecommunications providers at no more than 25 percent premium to the highest tariff or publicly available urban (Anchorage, Alaska) rate. This will eliminate the need to recreate expensive middle mile infrastructure to reap the benefits of competition.

ACS believes that the savings to the E-rate and RHC programs resulting from these reforms would be sufficient to fund affordable broadband deployment in Alaska in at least two ways. First, the funding could be used to construct terrestrial middle mile transport facilities covering up to 98 percent of Alaska's population, including many areas of the arctic region, with

the facilities provider subject to a requirement to offer for resale the capacity on the resulting infrastructure at no more than a 25 percent premium to Anchorage rates. Second, the funding could be used to allow the local ILEC in each newly-connected community to shorten loop lengths to no more than 2500 feet, subject to the requirement that the ILEC offer such loops to any competitor on an unbundled basis at a rate of 25 percent over cost.

3. Open Access and Nondiscrimination

In 2009, the Rural Utilities Service provided \$88 million in federal BIP grant award and loan funding to United Utilities, Inc. (“UUI”), a subsidiary of the largest cable television provider in Alaska, GCI, to construct “TERRA-SW,” a hybrid fiber-microwave terrestrial middle mile transport network intended to bring affordable terrestrial broadband services to remote Bush communities along Alaska’s remote southwest coast for the first time. Since completing the monopoly transport facility, GCI’s affiliates have indeed offered affordable residential broadband services, but charge excessive rates in many other contexts. GCI forecloses any broadband competition by refusing to make sufficient wholesale capacity available at affordable rates to potential competitors, and its wholesale rates even for limited amounts of transport capacity on TERRA-SW are several multiples of what satellite-based transport would cost.⁶ Based on the affordable retail residential broadband rates offered by its affiliates, such wholesale rates are clearly far higher than GCI apparently imputes to its own affiliates offering residential retail broadband services – a classic price squeeze.

Further, GCI charges inflated rates for services to schools, libraries, and rural health care providers, which can, in turn, pass those inflated costs on to the federal E-rate and RHC support

⁶ Despite the public funding of TERRA-SW, GCI’s rates are similar to (or higher than) the rates it offers on its privately funded monopoly fiber route from Fairbanks to Prudhoe Bay, Alaska.

mechanisms. GCI has often explained that it is a necessary and intended part of its business plan to use these inflated support payments to finance the expansion of its monopoly transport network to new areas of the state, thereby further increasing its profits. As an example, in GCI’s own words:

Further deployment of modern wireless and broadband networks to additional currently unserved communities in rural Alaska . . . depends upon the provision of services to key anchor telemedicine and distance learning customers that are supported by the various programs of the Universal Service Fund as well as continued efforts to leverage this funding to secure other private funding sources.⁷

ACS submits that such conduct is neither consistent with the requirements of BIP nor in the public interest. First, the BIP/BTOP *Notice of Funds Availability*, under which the TERRA-SW award was made, required recipients to “offer interconnection on reasonable rates and terms.”⁸ Second, the FCC has characterized this form of price squeeze – “a monopolist setting input prices that are actually higher than its prices in the output market” – as the “most extreme

⁷ *Connect America Fund*, Letter from Megan Delany, GCI, to Marlene H. Dortch, Secretary, FCC, WC Docket Nos. 10-90, 07-135, 05-337, 03-109, GN Docket No. 09-51, CC Docket Nos. 01-92, 96-45, WT Docket No. 10-208 (filed July 30, 2012), at 2-3, *available at* <http://apps.fcc.gov/ecfs/document/view?id=7021995350>.

⁸ BIP loan and grant awardees were required to “offer interconnection on reasonable rates and terms to be negotiated with requesting parties.” *Notice of Funds Availability*, 74 Fed. Reg. 33104, 33111 (2009). As a loan and grant recipient GCI pledged to adhere to the policies set forth in the Commission’s *Broadband Internet Policy Statement*, CC Docket Nos. 02-33 *et al.*, FCC 05-151 (rel. Sept. 23, 2005). *See id.* Through its ILEC affiliate, GCI specifically agreed to “offer wholesale and retail services to carriers and other customers that wish to provide or use broadband and other services in Service Area communities.” United Utilities Inc., “TERRA-SW: Terrestrial Broadband In Southwestern Alaska,” Executive Summary at 2, *available at*: <http://www.ntia.doc.gov/broadbandgrants/applications/summaries/93.pdf>. Unfortunately, following a mere acknowledgement of receipt, RUS has never responded substantively to ACS’s August 16, 2012 Freedom of Information Act request for full details of UUI’s wholesale rate and service commitments that became terms and conditions of its award. *See* Letter from Joseph Shunk, Chief, General Services Branch, RUS, FOIA Case No. 2012-RD-03478-F) (rec’d Sept. 18, 2012) (attached as **Exhibit A.**)

case.”⁹ In light of the well-recognized harm to competition and consumers that results from such a price squeeze, the FCC has previously ensured that it has sufficient safeguards in place to detect and deter such conduct in other contexts.¹⁰

Unfortunately, outside of their oversight of the performance and funding requests of a grant recipient during the initial funding period, when the recipient has not yet received all federal funds obligated to its project, neither the RUS nor NTIA have well-developed enforcement processes that would be available to enforce open access and nondiscrimination conditions. Especially after closeout of the grant funding period, the agency’s primary sources of leverage over grant recipients – the ability to impose special award conditions, disallow costs, or suspend or revoke the award – are no longer available.

Therefore, ACS urges NTIA to give careful thought to the design of robust – and enforceable – open access and nondiscrimination requirements before committing further federal financial assistance to middle mile transport networks. This is particularly true in Alaska, where alternative providers are scarce or nonexistent, and the cost of deploying alternative facilities makes doing so prohibitive. BIP and its companion program, the Broadband Technology Opportunities Program (“BTOP”) administered by NTIA, placed primary enforcement responsibility on the FCC for violations of programmatic nondiscrimination and interconnection requirements.¹¹ But, vexing jurisdictional issues regarding the FCC’s authority have enabled

⁹ See *Access Charge Reform*, CC Docket No. 96-262, First Report and Order, FCC 97-158, 12 FCC Rcd 15982 (1997), at ¶ 275.

¹⁰ *Id.* at ¶ 278; see also *International Settlement Rates*, IB Docket No. 96-261, Report and Order, FCC 97-280, 12 FCC Rcd 19806 (1997), at ¶ 231.

¹¹ *Notice of Funds Availability*, 74 Fed. Reg. at 33111 (“If the awardee and requesting party cannot reach agreement [on interconnection], they may voluntarily seek an interpretation by the FCC of any FCC rules implicated in the dispute With respect to non-discrimination,

UUI to take little notice of BIP’s requirements. To truly ensure the full public interest benefits of future investments, NTIA should ensure that it has identified a clear source of vigilant oversight authority, enforceable rules, and meaningful penalties for noncompliance.

B. Available and Planned Communications Services

Part III of the NOI seeks “information regarding existing and potential communications technologies, services, and applications for the arctic region,” specifically including “the availability of all network technologies, general communications services, and dedicated networks and special services targeted for specific user segments in Arctic Alaska,” NOI at 59748.

Modern broadband services would benefit the communities of Northern Alaska and a vast expanse of the arctic covering more than 100,000 square miles. For example, Barrow, Alaska is much more than the northernmost city in the United States; it is the gateway to the arctic and the Northwest Passage. With a population of more than four thousand (4,717) residents, Barrow is the largest city in the American arctic and is the host not only to the government of the City of Barrow, but also to the North Slope Borough (“NSB”), which is (by square mileage) the largest local political subdivision in the United States, approximately equal in size to the state of Wyoming, but with a total population of fewer than 8000 people. Barrow is home to the only hospital in the American arctic (the Samuel Simmonds Memorial Hospital), the only college in the American arctic (Ilisagvik College), and the only major library in the American arctic (Tuzzy Consortium Library). Barrow also hosts a variety of arctic science research via the Barrow Arctic Science Consortium and the National Oceanic and Atmospheric Administration’s

those who believe an awardee has failed to meet the non-discrimination obligations should first seek action at the FCC of any FCC rules implicated in the dispute.”).

(NOAA) Barrow observatory. In addition, there are K-12 schools, local government institutions, state and federal government institutions, research institutions, all of which would benefit by affordable access to reliable, high-bandwidth, low-latency, and Ethernet-based communications services.

Similarly, Wainwright, approximately 90 miles southwest of Barrow, is a community of over 500 residents with a well-functioning city government, school and health clinic that is also desperately in need of an alternative to its satellite communications connection with the rest of the world. Wainwright is located near the Chuckchi Sea, an area currently undergoing oil and gas exploration, and expects significant job growth but is constrained by inadequate infrastructure, such as communications infrastructure.

Neither of these communities is connected to terrestrial middle mile transport networks today, and they must rely on costly, capacity constrained satellite connectivity to meet their communications needs. Terrestrial fiber middle mile transport would also improve public safety through new broadband connections and coverage of the Dalton Highway, and national security for intelligence gathering and defense of America's arctic regions.

From an economic and national security perspective, the United States, and Alaska in particular, stand to benefit economically from the opening of the Northwest Passage. This change, however, will create new security and natural disaster challenges for the United States Navy and Coast Guard, because there is little communications infrastructure in the region, even radio towers. Improving and increasing this infrastructure will have tremendous returns in improving the security of North America and enabling earlier responses to disasters. In addition to economic benefits from the Northwest Passage, the countries that border the arctic region including the United States, Russia, Canada and Norway are in a race to lay claim to territory

beneath the Arctic Ocean. There is continued need for communications infrastructure as the United States pursues economic and scientific opportunities in the area.

Public safety and disaster relief rely on communications infrastructure and improvements in arctic telecommunications will greatly improve the ability of Alaska State Troopers, Village Public Safety Officers, and the Coast Guard to respond to search and rescue and provide fire protection, emergency medical assistance, law enforcement, natural disaster relief and avoid potential shipwrecks or fuel spills. The ability to respond quickly and efficiently to disasters greatly mitigates the long-term effects on the fragile arctic ecosystem.

Unfortunately, while ACS would like to deliver the type of reliable, high-capacity, affordable broadband services that residents, businesses, and community anchor institutions in the arctic region so clearly need, it has no current plans to deploy additional fiber facilities connecting arctic communities. ACS has fiber facilities between Anchorage and Fairbanks, but has found it economically infeasible to deploy fiber to the North Slope or other areas of the arctic region, because the costs are too high without federal financial assistance.

Because ACS is not the ILEC for any of the specific arctic communities identified in the NOI, it offers only a limited portfolio of services in the region. ACS hopes to be able to expand these service offerings in the future, when it is able to build or purchase the necessary transport capacity at commercially reasonable rates.

CONCLUSION

For the foregoing reasons, and as described more fully above, ACS urges NTIA to focus its efforts on fostering the expanded deployment of terrestrial middle mile transport facilities to remote Alaskan communities, including those in the arctic region. Such deployment, however, should be conditioned on robust, enforceable open access and nondiscrimination mandates, in order to ensure that the maximum public and competitive benefits from these investments.

Respectfully submitted,

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Exhibit A

Letter from Joseph Shunk, Chief, General Services Branch, RUS,
FOIA Case No. 2012-RD-03478-F) (rec'd Sept. 18, 2012)



**United States Department of Agriculture
Rural Development**

Mr. Richard Cameron
600 Telephone Avenue
Anchorage, AK 99503

Re: FOIA Case No. 2012-RD-03478-F

Dear Mr. Cameron:

This letter is being sent to acknowledge receipt of your Freedom of Information Act request which was received in this office on August 16, 2012.

The request is being reviewed to determine if any records responsive to your request exist. Once that determination has been made, you will be notified. If you have any questions, you may contact me at (202) 692-0015, or via e-mail at FOIA@wdc.usda.gov. Please reference the case number listed above in any of your communications with this office.

Sincerely,

A handwritten signature in black ink, appearing to read "Joseph Shunk". The signature is stylized with loops and a long horizontal stroke.

Joseph Shunk,
Chief, General Services Branch

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