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arctic slope regional corporation

December 3, 2014

Helen Shaw
National Telecommunications and Information Administration
U.S. Department of Commerce
1401 Constitution Avenue, NW
Room 4874
Washington, DC 20230

Email to: arcticnoi@ntia.doc.gov
Docket No: 140925800-4800-01 (Telecommunications Assessment of the Arctic Region)

Dear Ms. Shaw,

The Arctic Slope Regional Corporation ("ASRC") offers the following comments in response to the National Telecommunications and Information Administration's ("NTIA") request for written comments on the current and potential availability of communication services in the Arctic region.

Background

ASRC is an Alaska Native Regional Corporation created at the direction of Congress under the terms of the Alaska Native Claims Settlement Act of 1971 ("ANCSA"). See 43 U.S.C. § 1606. ANCSA was designed to settle the aboriginal claims of Alaska Natives and authorized the transfer of over 45 million acres of land and the payment of nearly $1 billion to Alaska Natives. This landmark legislation extinguished Alaskan aboriginal land rights, and authorized and directed Alaska Natives to adopt a western corporate model to manage lands, funds and natural resources. ASRC is owned by and represents the business interests of its approximately 11,000 Alaska Native Iñupiat Eskimo shareholders in the eight village communities of: Anaktuvuk Pass, Atqasuk, Barrow, Kaktovik, Nuiqsut, Point Lay, Point Hope and Wainwright. Consistent with the mandate put upon Alaska Native corporations through the passage of ANCSA, ASRC is a for-profit business that is committed both to providing sound returns to its shareholders and to preserving Iñupiat culture and traditions.

Telecommunications Services and Technologies in Arctic Alaskan Communities

The National Strategy for the Arctic Region Implementation Plan ("Implementation Plan") was released in January of 2014. In the Implementation Plan under its first line of effort to "Advance United States Security Interests," it calls to Develop Communication Infrastructure in the Arctic.

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Given that ASRC does not provide telecommunication services to our villages we are unable to speak to specific broadband speeds of wire line and wireless services but we are in a position to speak, in general terms, to the current availability, adequacy and reliability of network technologies and communication services in our region.

Existing & Potential Networks and Services in Arctic Alaska

Of the eight village communities that ASRC represents all lack adequate access to high speed network technologies and communication services. While the villages in our region do have access to network technologies and communication services the access to reliable and high speed network technologies is extremely limited. However, there is an example of high speed network technologies and communication services that has been implemented in Arctic Alaska, Prudhoe Bay. Prudhoe Bay proves that it is possible for high speed network technologies and communication services could be made available in Arctic Alaska. As decisions are made about communication infrastructure in the Arctic Prudhoe Bay could serve as an example and roadmap of how best to implement high speed network technologies solutions and communication services in Arctic Alaska.

As the Arctic becomes more and more attractive to conduct business the pressing need for reliable high speed network technologies and communication services is noticeably apparent. If there is going to be development or increased marine activity in the Arctic the availability of appropriate and dependable communication assets must be in place.

ASRC is aware of a proposed project to address both current and emerging user needs. The project, Arctic Fiber would have two express fiber pairs from Japan to London with a total capacity of 24T/bs. Arctic Fiber would also improve network technologies in Arctic Alaska by placing landings of one local fiber pair, with a 5Tb/s capacity, in the communities of Nome, Kotzebue, Point Hope, Wainwright, Barrow and Prudhoe Bay.

Mobile Wireless

Mobile, wireless telephone services in Arctic Alaska, with the exception of Prudhoe Bay, are undependable. Again, outside of Prudhoe Bay, the eight village communities that ASRC represents have no access to high speed mobile broadband capabilities. There have been instances when mobile telephone services quit working for hours at a time. To that end, ASRC believes it would be extremely difficult to find a large percentage of, if any, residents who have replaced their wire line telephones with wireless telephones. Under no circumstances, in our eight village communities, are mobile, wireless telephone services considered the most effective broadband solution.

Several barriers exist in Arctic Alaska that prevents wide scale deployment of third and fourth generation technologies in the region. The remoteness of the village communities in Arctic Alaska makes it difficult to build region wide service. The location of the communities brings

challenges in the form of terrain and weather related barriers for both the construction and maintenance of new infrastructure. Nevertheless, as mentioned earlier, with the increased activity in our region of the Arctic the need to build the appropriate communication infrastructure has become more and more apparent.

Satellite Communication Services

Given the needs of organizations in our region who currently utilize satellite technology for both communication and data purposes the technology has proved to be extremely limiting and expensive to use. Further, both the high cost of construction and the arduous permitting process are factors that play into the decreased likelihood of new systems being launched. Currently, ASRC does not have knowledge of additional satellite technology that is planned for use in our region.

Submarine Cable Networks

ASRC cannot speak to how existing submarine cable networks currently support the delivery of communication services in Arctic Alaska because there are no submarine cable networks that support delivery to our region. It is our understanding there are only proposed projects on the horizon. It is our belief that the advantages of having submarine cable networks for support in delivery of communication services in Arctic Alaska would be tremendous. While the cost to install the networks is high, the speed and technology lowers the price to create demand. New submarine cable facilities in our region would contribute to increased efficiency to businesses, all levels of government and other users. For one, it would greatly increase software application usage. From an industry point of view it could automate operations thereby increasing potential for success as well as reducing cost of operations. From a social services point of view it would increase government services efficiency in its delivery of healthcare and education in the Arctic.

The current timetable to begin construction for submarine cable networks to support delivery of communication services to Arctic Alaska is anticipated for 2017. Keep in mind that this type of work in the Arctic is unprecedented. As such, there is current permitting risk in doing this type of work in the Arctic.

Very High Frequency Radio Communications

Very High Frequency (VHF) radios are widely used by residents of Arctic Alaska. VHF radio communication is the predominant means for mass communication in many of our small communities. In a village that has limited communication services available for use VHF radio communication is both the most reliable and the least expensive form of communication.

Existing and Potential Networks and Services Across the Pan-Arctic Region

The reality is that, overall, the current status of network technologies and communication services in Arctic Alaska is unreliable and does not meet the communication requirements of local residents, businesses, local authorities and other user groups. As mentioned before,

Prudhoe Bay is the only community in Arctic Alaska that has access to appropriate network technologies. However, the planned technology mentioned in these comments could bridge critical gaps in communication services that currently exist.

To address the question of planned network technologies and services in the pan-Arctic region, one of import is the Arctic Fiber project, mentioned earlier.

Fostering the Deployment of Advanced Communication Networks and Services in Arctic Alaskan Communities and the Pan-Arctic Region

Funding has been and will continue to be a challenge for deployment of new communication capabilities across the pan-Arctic region. Likewise, the potential for permitting delays could bring the progress of proposed projects to a halt. Since, the permitting processes are so onerous ASRC recommends establishing a method, administered by the appropriate federal agencies, to support potential permit holders throughout the permitting process. This support could facilitate timely and appropriate deployment of new communication capabilities. Additionally, providing a means for remote communities whose local economic base is limited to have access to grant funding in order to support infrastructure tie-ins would be beneficial to all users in the region.

Overall Adoption Barriers

To say that communications infrastructure challenges faced in the Arctic are different than those elsewhere on the planet is an understatement. There are many challenges faced when addressing how to bridge the communication infrastructure gaps in Arctic Alaska. The vastness of Arctic Alaska coupled with the distance between the region's communities makes the implementation of new communication infrastructure difficult. It is important to keep in mind that it is not only the physical challenges like, distance, remoteness, and climate challenges that add to the high cost of building new infrastructure but it is also the regulatory processes, which are inconsistent and cumbersome.

Conclusion

ASRC appreciates the opportunity to comment on the current state of network technologies and communication services in our region. We also appreciate the effort the NTIA is putting forth to better understand the challenges and barriers with regards to the communication infrastructure in our region. ASRC believes it is important that before any movement in creating new communication infrastructure occurs there must be a thorough understanding of the communication needs in Alaska's Arctic, taking into account all users especially those who reside permanently in the Arctic. Once there is a thorough understanding of the needs realistic framework should developed of how best to address the gaps in communications infrastructure now and into the future.

Lastly, ASRC would like to remind the NTIA that the people of the Arctic, many who our shareholders, have lived in the Arctic for thousands of years and will continue to live in the Arctic for thousands of years to come. As the world begins to look north for economic

opportunities in the Arctic region, remember that our people will be impacted first-hand by any activity that occurs in the Arctic and it is enormously critical that we, the people of the Arctic, have meaningful participation in any decisions made that impact our region. As the NTIA moves forward with recommendations for new communication infrastructure in Arctic Alaska, keep in mind that the region's permanent residents ability to access affordable, reliable, high speed network technologies and communication services merit just as much consideration as those areas where only development will take place.

Respectfully,
ARCTIC SLOPE REGIONAL CORPORATION

Rex A. Rock, Sr.
President & CEO