

MESSENGER

Winter 2018



INVESTING IN OUR COOPERATIVE'S BROADBAND FUTURE – THE DEFINITION OF CHANGE

By Jens Laipenieks CEO/General Manager



Telecommunications terms and acronyms are constantly evolving. The definition of "Broadband" is one definition in particular that is indicative of that rapid evolution. In the Telecommunications act of 1996, "Broadband" was first formally defined as a symmetric 200/200 kbps (or .2 Mbps up/down) connection. This was about 4X the speed of an average dial-up modem connection. For 14 years, the 200 Kbps definition remained until, in 2010, the FCC modified the definition to 4/1 Mbps. The justification for this change was tied to the increase in video streaming and conferencing usage in addition to traditional web browsing. Most recently, under Chairman Tom Wheeler in 2015, the FCC definition was again changed, now set at 25/3 Mbps. This new standard represents a 12,400 percent increase since 1996. The current FCC target for Broadband connectivity to schools is one Gbps per 1,000 users, or one Mbps per child. These are today's targets and will surely continue to increase as the pace of technological evolution and adoption accelerates.

Although the definition and expectation of "Broadband" changed, the connectivity to the Arctic did not. In many locations in the Arctic, satellite was, and is, the only option. While it served us well in the dial-up days, it has always been expensive, slow and susceptible to weather and atmospheric interruptions. The initial concept of a subsea fiber optic cable connecting the Arctic can be traced way back to the 1980's but began to take shape in earnest

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LTE WIRELESS SITE TURNUPS



Village Representative David Serino finalizing the LTE update in Point Hope

ASTAC upgraded its wireless services to LTE in Point Hope, Wainwright and Utqiagvik in October. With faster data speeds, users will be able to utilize and experience the Internet in quicker, richer ways – opening up new possibilities for people and businesses. ASTAC will continue upgrading wireless sites to LTE over the next two years in each of the eight North Slope communities it serves. “ASTAC is committed to closing the technology gap across the North Slope to enhance our membership’s experiences and improve safety in some of the most remote places in Alaska. LTE is a big part of that and a real game-changer in the region,” says Jens Laipenieks, ASTAC CEO/General Manager.



ASTAC wireless equipment on ASRC's communications hut

Investing in our Cooperative's Broadband Future – The Definition of Change (cont.)

in 2009-2010. The momentum was driven by changes in the Arctic sea ice conditions, the opening of the Northwest Passage as well as the promise of a faster, more direct communication link between financial markets in Europe and Asia. Just from concept to design, bringing better connectivity to the Arctic Slope was a monumental undertaking; years of planning, hundreds of permits, and millions of dollars. Implementation was another five years and hundreds of millions of dollars. Fast-forward to 2018, and we now have state of the art fiber optic cables along the Dalton Highway and spanning the depths of the Beaufort and Chukchi seas.

As the FCC has its definitions that are changing and important, ASTAC also has definitions that guide us. The most important definition is one that defines us, ASTAC, your cooperative.

Either as an adjective or noun the definitions of cooperative have a similar meaning: working together for a shared goal and a shared benefit. My goal for the future of ASTAC is broadband for all, wired and wireless, enabling you, our membership, access to all the opportunities that real broadband brings. This is one definition that will not change over time, nor will ASTAC's commitment to our membership.



ASTAC is committed to the goal of broadband for all, and for the past four years has been investing heavily in upgrading our networks to prepare for this future. These investments have been focused on upgrading our delivery networks to fiber optics to the premise (FTTP). Since 2014, ASTAC has invested over \$8 million in new fiber. Upon completion of our build-out in Utqiagvik next summer we will have installed about 63 miles of new fiber optic cable connecting close to 2,200 locations in Point Hope, Wainwright, Nuiqsut and Utqiagvik. These new fiber networks are an investment in the future of ASTAC and the future of the North Slope. Our new FTTP networks will sustain the demand for more bandwidth as the definition of “Broadband” changes into the future.

We are not stopping here. Our goal will not be completed until we can connect ALL our members to quality broadband. Today, we currently have four remaining markets which are still connected by satellite: Kaktovik, Anaktuvuk Pass, Atkasuk and Point Lay. We are actively exploring all available options to economically connect our “final four” to better bandwidth. These will be large and costly projects, and we will be seeking out partners, programs and resources to make them a reality.

There are other key benefits that come with the new fiber connections. The new optical network terminals, or ONTs, what you used to call the modem, are more technologically advanced than anything we have ever offered before. Our new Home Internet¹⁰ product includes a state-of-the-art ONT that has four wired connections to the Internet and on-board, high capacity Wi-Fi for all your connected devices. These ONTs also allow ASTAC to remotely diagnose and manage any issues. This will greatly improve our ability to provide you tech support. Managed Wi-Fi is included with our Home Internet¹⁰ as is our 24/7 tech support.

One final note, it is important to also understand that the economics matter. Our products and services must be sustainable for our cooperative to survive. Even though our new fiber networks can support delivery speeds well beyond one Gbps, our current cost of the connectivity to the Internet is still very, very expensive. In fact, our transport costs more than just about any other fiber connected location in the country. We anticipate the economics to improve in the future, and our network will be more than ready to serve you when that day comes.

ASTAC is proud to be actively closing the digital divide in the Arctic and we look forward to continuing to improve your services.

TROUBLESHOOTING 101



If it's been awhile since you checked out ASTAC's YouTube channel, stop by and explore our latest playlist of educational videos. The videos review router placement, Internet connectivity, bandwidth and phishing awareness in a quick and easy to follow manner. You can find our channel at:
<https://www.youtube.com/user/ArcticSlopeTelephone>

NO. MORE. LIMITS.



ASTAC hosted a community event in Utqiagvik on November 16 to bring the community together for a good time and highlight our new Unlimited Wireless Plan. Nearly 200 people attended and were treated to a special performance by the Taguigmut Dancers, food and great prizes through a fun game of Bingo. ASTAC thanks everyone for coming out and joining us for a fun evening and looks forward to visiting other communities next year for community education events. Be sure to follow us Facebook and our web site to learn of dates and times.



DID YOU KNOW?

Cell phone Fun Facts

- The first cell phone in 1983 came with a hefty price tag of \$4,000.
- Cell phones have 18 times more bacteria than toilet handles.
- Present-day cell phones have more computing power than the computer used for Apollo 11 to land on the moon.
- More than 90 percent of adults have their cell phone within arm's reach at all times.



HEARING AID COMPATIBLE PHONES

Hearing aids do not always function well with wireless handsets. ASTAC has numerous handsets that have been tested and rated for use with hearing aids and it offers several price categories. ASTAC's sales staff is trained to assist customers looking for Hearing Aid Compatible (HAC) devices/handsets.

When choosing a phone, it's important to try the different features thoroughly and in various locations using your hearing aid or cochlear implant to determine if you hear interfering noise. Refer to our website for more details regarding HAC phones and their price ranges.



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Anchorage staff got into the spirit of Halloween

Swoosh



ASTAC wrapped up its 9th Annual Swoosh contest in Kaktovik on November 13. Competitions were held in all eight North Slope communities over seven weeks. Soon, ASTAC will select a grand prize winner from all the first-place winners and send them and a guest to see the NCAA Men's Final Four Tournament in Minneapolis, Minnesota April 6-8, 2019! Stay tuned to our website and Facebook page to see who the lucky winner is!



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ASTAC OFFICE

4300 B St. Suite 501,
Anchorage, AK 99503
907-563-3989 Anchorage
907-852-7100 Utqiaġvik
800-478-6409 Toll-free
E-mail: info@ASTAC.net

