



May 24, 2019

Marlene H. Dortch, Secretary
Federal Communications Commission
Office of the Secretary
445 12th Street, SW, Room TW-B204
Washington D.C. 20544

Re: Comments regarding FCC Notice of Proposed Rulemaking (Proceedings 18-120)

Dear Secretary Dortch,

We are deeply grateful that the FCC has granted the Havasupai Tribe's permanent application for the A channels over their lands. With the special temporary authorization they received last year, they have been able to build their own network to serve the educational needs of their community. Students attend real-time classes in Flagstaff without having to commute nearly four hours by car and helicopter. Head Start educators take online courses, keeping their school in compliance with national standards. Teachers have continued their education in order to obtain specialized degrees. Now that they have a permanent license, plans for a remote charter high school can go forward. Currently the local school stops at the eighth grade and if students want to continue on to 9th grade and beyond, the fourteen year-olds must leave their homes, families and way of life to attend boarding schools. The planned charter high school will allow these students to have the educational opportunities they need, without having to leave home.

As hypothesized in Midco's filing¹, rural America can be served now with current technologies to bridge the Homework Gap. The Havasupai Tribe and MuralNet have already built networks using the method described by Midco in one of the most remote areas of the United States. What Midco's filing does not address is that commercial interests do not believe there is any business case in areas such as the Havasupai Reservation. If EBS goes straight to an auction in which commercial entities can own licenses, it will look like most other bands, owned by mid-sized and big telecoms whose current motivations for building out broadband do not meet the needs of Tribal Nations and rural areas. Meanwhile Tribal Nations are driven by motivations for improving quality of life, the betterment of their community and its future. They also understand the

¹ Midco, FCC Comment on Proceeding 18-120, slides 10-11,16



economic landscape of their communities much better than outside companies. We have found that Tribal communities can find ways to make the networks financially sustainable that outsiders could not imagine. Due to their highly invested interests in their own communities and their fiscal savviness, Tribal Nations are much more likely to find the means to deploy and maintain high speed Internet networks on their lands.

If The Havasupai Tribe is granted access to all EBS channels through Tribal priority windows, they will be able to address their telemedicine needs, increase their emergency preparedness, develop income streams and stimulate local economic development. Everything they have built and the future expansion of their Internet network has all been done without government money. Their work can only continue if they have the opportunity to access all the EBS spectrum over their lands.

Some say that CBRS spectrum should be sufficient to disperse high-speed Internet to rural communities. This is not our experience for several reasons. Since it is at a higher frequency than EBS spectrum, we have found that networks built on CBRS spectrum travels half as far as EBS-based networks. Also CBRS signal does not penetrate foliage or the walls of homes as well as the EBS-based networks we have built. Lastly, policies governing CBRS spectrum are much more restrictive. Power limitations on CBRS spectrum mean reduced range and CBRS monthly subscription fees and priority license costs makes financial sustainability for networks in underserved and poorer areas much more challenging. While the cost of deployment for CBRS and EBS networks can be similar, EBS spectrum networks are cheaper, have better coverage, are more flexible and are protected from interference longer, encouraging communities to invest more.

MuralNet advocates for

- First priority windows for tribal entities followed by local incumbents, schools and educational nonprofits to obtain licenses in the 2.5 GHz band
- A rolling tribal priority application window of twelve months and a significant outreach effort to tribal communities unaware of the benefits of having a license in the 2.5 GHz spectrum. This length of time allows for networks to be built on tribal lands which can be used as demonstration sites in the outreach effort.
- Buildout requirements for existing licenses such that within 3 years 60% of the population on tribal lands could be served at broadband speeds and within 5 years 90% of the population on tribal lands could be served at broadband speeds. If these buildout requirements aren't met, the current license holder should lose exclusive spectrum access over the tribal lands and the tribal community should have a chance to claim the license.

Mural Net

- Tribal GSA boundaries such that they include the convex polygon circumscribing the reservation
- Tribal Nations should be able to claim all EBS spectrum over their lands so they can provide the best service to their communities and be prepared for future network needs
- Channels should include 40 MHz of contiguous bandwidth to better fit technological requirements
- Keep educational requirements for new and incumbent licenses and
- Keep EBS spectrum reserved for the public good.

It is important that the FCC takes the time to make the best decision about the future of EBS spectrum. MuralNet has other partners who are interested in using the Havasupai Tribe's model to develop their own high speed Internet networks. Removing the educational requirements of EBS and allowing commercial ownership of licenses would make it like any other band and prevent the development of innovative methods and collaborations to connect communities that aren't driven by return on investment. Please do not rush this decision.

Respectfully,



Mariel Triggs
CEO, MuralNet