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POLICY OVERVIEW

Spectrum Airwaves: A Natural Resource Tribes Must Leverage

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Background – What is Spectrum?

Spectrum has become a vital and important natural resource because it is finite and has economic and public use, purpose, and benefit. Similar to other natural resources such as water, timber, minerals, and precious metals, the use of radio frequencies (spectrum) has become integrated into everyday life. However, unlike other natural resources, the spectrum frequencies used to wirelessly transmit digital television, radio, and voice and data communications (e.g. the internet) are not visible to the human eye without the use of technological instruments. Because spectrum is not a tangible resource it can be difficult to understand how telecommunications and the internet are transmitted wirelessly using spectrum frequencies and the importance of having access to spectrum licenses.

While we access the internet every day through the use of computers/laptops, smartphones, and tablets, the information accessed through the internet is stored on millions of servers in data centers (large climate-controlled warehouses) located around the world. From those data centers the internet is transmitted globally through high-speed fiber optic cabling located underground, above land, and under oceans. Spectrum is a valuable resource for transferring information on the internet from a fiber optic backhaul network and transmitting it wirelessly through a cell tower to another communications device—such as another cell tower or wireless access point like a Wi-Fi network, or directly to a computer/laptop, smartphone, or tablet.

The use of spectrum by tribal governments, corporations, and citizens is an important, yet complicated subject. Some tribes have been successful in obtaining spectrum licenses to establish their own radio and low-power television stations, while others have used unlicensed spectrum (e.g. whitespace spectrum) to transmit data and communications over lands that industry providers have refused, or overlooked, to serve. Nonetheless, it is imperative that tribes exercise their sovereignty to leverage spectrum resources to serve the economic and public needs of their governments, businesses, and communities.

This Policy Overview is not meant to explain the specific engineering and technical aspects associated with the wireless transmission of data. Instead, it seeks to explain the importance of how spectrum is managed and allocated by the federal government for commercial and public use and how these activities affect Tribal Nations. Without access to radio frequencies that wirelessly transmit data, the use of radio stations, digital television, and smartphone communications cannot exist. Throughout this paper it is also important to note, however, that access to high-speed fiber optic cable backhaul and middle mile infrastructure¹ must be within reasonable distances of tribal reservations before an initial wireless broadcast/transmission of data can occur. Therefore, spectrum is part of a broader ecosystem of broadband technologies that tribes must have access to. This Policy Overview will provide a review of federal policies

associated with tribal access to spectrum licenses and the challenges tribes face in leveraging spectrum for economic and public use.

Spectrum Management and Allocation – The Role of the Federal Government

As commercial wireless networks expand to serve more consumers, transmit larger amounts of data, and advance to provide faster internet speeds, the telecommunications industry will consistently require additional bands of spectrum to keep pace with consumer and commercial needs. Primarily, two entities within the federal government are responsible for managing and allocating spectrum for federal, public, and private use. The National Telecommunications and Information Administration (NTIA) is responsible for managing spectrum used by federal departments, agencies, and the military, while the Federal Communications Commission (FCC) is tasked with managing spectrum used by commercial, public, and private entities.ⁱⁱ

On June 28, 2010 President Obama issued a Presidential Memorandum to free 500 MHz of spectrum held by federal and non-federal entities for the purpose of driving commercial wireless deployment nationwide.ⁱⁱⁱ This action was one of the first recent major policy initiatives to identify spectrum held by the federal government and military for the purposes of transitioning such spectrum licenses to commercial wireless use. The Memorandum directed NTIA to collaborate with the FCC to complete this initiative by the year 2020. It also encouraged the FCC to provide ‘exclusive use’ to identified spectrum by awarding licenses to commercial providers, or developing a mechanism where spectrum could be shared between commercial and federal government entities.^{iv}

Following the 2010 Presidential Memorandum, the FCC held multiple spectrum auctions to repurpose existing assigned licenses for commercial wireless use. In June 2011 the FCC held Auction 92, which auctioned 16 spectrum licenses in the 700 MHz band for commercial purposes and generated \$19.7 million for the U.S. Treasury from seven auction bidders.^v In September 2012, the FCC initiated a Notice of Proposed Rulemaking to hold the first ever ‘incentive auction’ for the broadcast television industry to voluntarily relinquish certain spectrum licenses to the FCC to auction for commercial mobile use.^{vi} Following nearly four years of rulemakings by the FCC, the first-ever incentive auction commenced in March 2016 and closed in March 2017.^{vii} The incentive auction generated \$19.8 billion in revenue, of which over \$10 billion was awarded to broadcast bidders that had relinquished spectrum for the auction and \$7 billion was deposited in the U.S. Treasury.^{viii} Finally, one of the most profitable FCC auctions was held between November 2014 and January 2015. FCC Auction 97 proposed to repurpose 1,614 spectrum licenses from federal use to support commercial mobile service deployment.^{ix} The auction culminated in 1,611 licenses being awarded to 31 bidders and generated \$41.3 billion in revenue.^x Of the over \$41 billion generated in Auction 97, \$7 billion was used to fund the construction of a nationwide public safety broadband network known as FirstNet; \$300 million for public safety communications research; \$115 million to fund grants for implementation of Next Generation 911; and over \$20 billion was deposited in the U.S. Treasury for budget deficit reduction.^{xi}

In October 2018, President Trump issued a new Presidential Memorandum that rescinded and replaced the Obama Memorandum issued in 2010. President Trump’s, “Presidential Memorandum on Developing a Sustainable Spectrum Strategy for America’s Future”, sought to continue repurposing spectrum from federal and military use for commercial mobile purposes but had an emphasis on identifying spectrum for 5G cellular deployment.^{xii} In November 2018 the FCC initiated the first-ever auction of high-band spectrum to support the deployment of 5G services.^{xiii} The FCC proceeded with the auction of high-band spectrum to support 5G deployment through two auction proceedings—Auction 101 concluded in January 2019 and culminated in 2,965 licenses bid upon by 40 entities and generated \$702.5 million in gross revenue^{xiv}, and Auction 102 concluded in May 2019 and culminated in 2,904 licenses bid upon by 29 entities and generated \$2.02 billion in net revenue^{xv}.

Awareness of these spectrum auctions held over the past decade is important to understand how these events have affected, if not excluded, Tribal Nation participation. As illustrated by the numerous aforementioned

auctions, spectrum is a high-priced, highly-valued commodity that generates millions/billions of dollars in an auction proceeding. The spectrum auction mechanism has favored those in the telecommunications industry with the immense deep-pocket, on-hand resources and capital needed to participate in spectrum auctions. The following sections of this Policy Overview will provide a synopsis of federal regulatory actions that have sought to level the playing field for tribes to access spectrum licenses, albeit many of these regulatory actions have had limited to varying levels of success until recently. As with any other type of natural resource development and utilization on tribal lands, the federal government—as trustee to tribes—has a fiduciary responsibility to identify tribal barriers to access while promulgating laws and regulations that increase Tribal Nation access to this finite resource.

The ‘Tribal Priority’ to AM and FM Radio Licenses – The First Spectrum Precedent for Tribes

The recommendation that a ‘Tribal Priority’ should be established for tribes to access spectrum licenses prior to a commercial auction proceeding is not a new concept. In April 2009 the FCC initiated a Notice of Proposed Rulemaking in MB Docket No. 09-52, *Policies to Promote Rural Radio Service and to Streamline Allotment and Assignment Procedures*, which proposed a Tribal Priority to FM and AM radio allotments prior to such spectrum licenses going to auction.^{xvi} During consideration of the 2009 proceeding to adopt a Tribal Priority to radio licenses there were 41 FM radio stations in operation in Indian Country.^{xvii} According to Native Public Media—an organization representing tribal radio and television stations—there are now currently 57 radio stations and 4 television stations that are owned and operated by tribes in the U.S.^{xviii} Following establishment of a Tribal Priority to AM and FM radio licenses, the Navajo Nation and Hualapai Tribe were the first to obtain FM radio allotments in March 2013.^{xix}

The radio broadcast Tribal Priority is important because it established a first-ever FCC precedent to spectrum licenses for tribal governments, tribal consortia, and entities 51 percent or more owned or controlled by a tribe or tribes. Legal arguments offered by Native Public Media and the National Congress of American Indians also emphasized the unique sovereign status of Tribal Nations and the fiduciary trust relationship between the federal government and tribes as justification for adoption of the Tribal Priority.^{xx} Further, in adopting the Tribal Priority in the AM/FM radio proceeding the FCC stated that:

“[Adopting the Tribal Priority] will advance the Commission’s longstanding commitment, in accordance with the federal trust relationship, ‘to work with Indian Tribes on a government-to-government basis...to ensure, through its regulations and policy initiatives, and consistent with Section 1 of the Communications Act of 1934, that Indian Tribes have adequate access to communications services. Pursuant to that commitment, the Commission has recognized ‘the rights of Indian Tribal governments to set their own communications priorities and goals for the welfare of their membership.’ The new Tribal Priority will promote those sovereign rights by enabling Tribes to provide vital radio services to their communities.”^{xxi}

FCC WT Docket No. 11-40 – Proposals to Increase Tribal Access to Commercial Spectrum Licenses

While the MB Docket 09-52 proceeding was specific to radio broadcast licenses over tribal lands, 14 months later the FCC proposed an expansion to the ‘Tribal Priority’. On March 3, 2011 the FCC issued a Notice of Proposed Rulemaking in WT Docket No. 11-40, *Improving Communications Services for Native Nations by Promoting Greater Utilization of Spectrum over Tribal Lands*. The FCC proposed an expansion of the Tribal Priority to include commercial wireless spectrum within the geographic boundaries of a tribal reservation, but also posed questions about whether or not the Priority should be expanded to include unserved and underserved areas surrounding reservations.^{xxii} The FCC also proposed establishing a separate Tribal Priority to unassigned wireless licenses over tribal lands.^{xxiii} In addition to proposing these Tribal Priorities, the FCC also proposed creation of a formal negotiation process for tribes to access currently held spectrum through a secondary market mechanism, and to re-license dormant spectrum over tribal lands from current licensees.^{xxiv}

The proposal to structure a formal negotiation process for tribes to access spectrum through a secondary market mechanism would have allowed tribes to enter into ‘good faith’ negotiations with incumbent licensees to

partition or lease portions of a spectrum license over tribal lands.^{xxv} The FCC proposed structuring these interactions through a Notice of Intent filing that could be submitted by a tribe interested in obtaining secondary market access from a telecommunications provider holding spectrum license(s) over their lands.^{xxvi} The FCC, acting for the benefit of the tribe in recognition of its trust relationship, would have been involved in these negotiations as a sort of intermediary. In the rulemaking the FCC sought comment on structuring the ‘good faith’ negotiation process by proposing a two-part test to determine if a licensee had exercised good faith negotiations when approached by a tribe. The first part proposed a list of standards for the negotiation process with the FCC stating that:

“First, a licensee may not refuse to negotiate with a Tribal entity whose Tribal lands are within its service area but to which it has not deployed service. Second, a licensee must appoint a negotiating representative with authority to bargain on partitioning and spectrum leasing issues. Third, a licensee must agree to meet at reasonable times and locations and cannot act in a manner that would unduly delay the course of negotiations. Fourth, a licensee may not put forth a single, unilateral proposal. By this, we envision that a licensee would have to be willing to consider and discuss alternative terms or counter-proposals, as it would appear that ‘take it or leave it’ bargaining without consideration of reasonable alternatives could be found to be inconsistent with an affirmative obligation to negotiate in good faith. Fifth, a Tribal entity, in responding to an offer proposed by a licensee, must provide considered reasons for rejecting any aspect of the licensee’s offer. Finally, if an agreement is reached, a licensee must agree to execute a written agreement that sets forth the full agreement, between the licensee and the Tribal entity.”^{xxvii}

The second part of the good faith test that the FCC sought comment on was whether or not to adopt a ‘totality of the circumstances standard’. This standard would have allowed “a Tribal entity to present facts to the Commission which, even though they do not allege a violation of the objective standards, given the totality of the circumstances constitute a failure to negotiate in good faith.”^{xxviii} In presenting the facts of a licensee failing to negotiate in good faith the burden of proof would be upon the tribal entity filing the complaint to the FCC.^{xxix}

Finally, the FCC sought comment on a ‘Build-or-Divest Process’, which had been proposed by a number of tribal commenters such as the National Congress of American Indians, Native Public Media, the National Tribal Telecommunications Association, and the Navajo Nation Telecommunications Regulatory Commission.^{xxx} The Build-or-Divest Process would allow a qualifying tribal entity to “require a licensee to build or divest a geographic area covering unserved or underserved Tribal lands within its license area.”^{xxxi} The FCC proposed a Notice of Intent filing procedure for a tribe to initiate this process after a licensee had met its buildout requirements for a spectrum license area, but failed to provide service on unserved or underserved tribal lands.^{xxxii} Following the filing of a Notice of Intent the FCC also sought comment on whether a licensee should be allowed to extend service coverage on tribal lands, or outright “relinquish its [license] for the unserved or underserved Tribal land within the geographic area of its license” .^{xxxiii}

Tribal commenters, which included tribal governments, consortia, telecommunications providers, and organizations and associations, supported the adoption of these proposals. Among these tribal entities, the National Congress of American Indians (NCAI) consistently filed comments in the WT 11-40 proceeding urging the FCC to adopt the Tribal Priority, tribal secondary market access, and Build-or-Divest proposals. In October 2012 NCAI—the oldest, largest, and most representative organization of tribal governments—passed Resolution #SAC-12-034, “Promoting Tribal Nation Access and Use of Spectrum for Communications Services” .^{xxxiv} The Resolution affirmed a July 2012 filing submitted by NCAI to the FCC calling for the FCC to adopt the tribal proposals in WT 11-40 stating:

“Tribal Nations need access to spectrum that was licensed long ago to companies that have failed to build out to communities on Tribal Lands. Much needed rule changes will serve tribal needs in these least connected regions of the country. It is not only a matter of need but also a matter of efficiency in the use of this important resource, and especially in those many instances where the spectrum is not being used for the benefit of our communities.”^{xxxv}

However, no further action on WT Docket No. 11-40 was taken by the FCC. The proposals to increase Tribal Nation access to commercial wireless licenses have since remained stagnant. Issues with tribal access to spectrum licenses would persist as new FCC proposals to deploy high-speed mobile broadband services were advanced by the FCC. Spectrum auctions held by the FCC to incentivize deployment of mobile broadband services nationwide did not take into consideration the barriers to entry that tribes would experience to participate in such auctions.

The Mobility Fund and Tribal Mobility Fund Auctions – Tribal Issues and Barriers to Participation

Eight months following the WT 11-40 proceeding, the FCC released the *USF/ICC Transformation Order*—otherwise known as the Connect America Fund (CAF) Order.^{xxxvi} Released in November 2011 the CAF Order recognized the need to reform and modernize the Universal Service Fund programs to support the deployment of high-speed mobile and fixed broadband services. The Universal Service Fund is comprised of four programs:

- 1) The High Cost Fund (also known as the Connect America Fund) provides subsidized support to telecommunications carriers to deploy affordable telecommunications service in areas where infrastructure deployment costs are expensive;^{xxxvii}
- 2) The Low-Income Programs cover telephone installation costs for consumers (Link-Up Program) as well as provide low-income individuals with access to affordable telephone and cell phone billing plans (Lifeline Program);^{xxxviii}
- 3) The Rural Health Care Program provides funding for broadband access to eligible health care provider centers that are non-profit or public entities; and^{xxxix}
- 4) The Schools and Libraries Program (known as E-Rate) provides affordable telecommunications services to connect schools and libraries to the internet and covers some internal connection costs within these facilities.^{xl}

The Universal Service Fund is supported by contributions by telecommunications service providers that are usually collected from end-users (consumers).^{xli} Consumers can usually see a ‘Universal Service Fee’, or ‘USF Fee’, on their telephone and cell phone bills—this fee is collected by telecommunications providers and is deposited in the Universal Service Fund to support the four aforementioned programs.

In reforming and modernizing the Universal Service Fund programs in the CAF Order, the FCC established the Mobility Fund and Tribal Mobility Fund to operate in *two phases* to fund mobile broadband deployment. *Phase 1* of the Mobility Fund sought to provide “up to \$300 million in one-time support to immediately accelerate deployment of networks for mobile voice and broadband services in unserved areas”, which included tribal lands.^{xlii} Additionally, in *Phase 1* of these awards, the FCC proposed “a separate and complementary one-time Tribal Mobility Fund...to award up to \$50 million in additional universal service funding to Tribal lands to accelerate mobile voice and broadband availability...”^{xliii} *Phase 2* of the Mobility Fund would provide up to \$500 million a year for wireless broadband deployment, of which \$100 million would be dedicated to wireless deployment on unserved tribal lands.^{xliiv}

During these two phases of the Mobility Fund—inclusive of the Tribal Mobility Fund in *Phase 1*—unserved tribal lands were eligible for up to \$450 million in subsidies to support the deployment of high-speed broadband wireless services. However, the award of these funds was to occur through a ‘reverse auction’ mechanism, which favored low-cost bids to meet high-speed wireless coverage goals in unserved areas.^{xliv} In adopting the reverse auction process the FCC stated:

“We are unpersuaded by arguments that we should not conduct a reverse auction because larger carriers, with greater economies of scale or other potential advantages, will be able to bid more competitively than smaller providers. For a variety of reasons...we are confident that both the auction design and natural advantages of carriers with existing investments in networks in rural areas should provide opportunities for smaller providers to compete effectively at auction.”^{xlvi}

While the reverse auction process awarded service providers that indicated they required the lowest amount necessary to meet coverage requirements in unserved areas, two other issues would entirely prevent tribal participation in the Mobility Fund and Tribal Mobility Fund Auctions.

These issues were highlighted in retrospect by comments filed to the FCC by the National Congress of American Indians (NCAI) in May 2015. Reflecting on the Mobility Fund *Phase 1* reverse auction held on September 27, 2012, NCAI stated that three tribally-owned and operated telecommunications providers attempted to participate “but only one provider was able to meet all the eligibility criteria and selected as a winning bidder”.^{xlvii} NCAI highlighted two primary barriers to tribal participation in the Mobility Fund and Tribal Mobility Fund auctions. First, bidders were required to provide an irrevocable letter of credit, which proved problematic for tribal bidders to produce since “many tribes still face immense challenges in gaining access to capital and credit to support infrastructure projects on tribal lands.”^{xlviii} Further, NCAI stated that “the primary assets of tribes are their lands, which cannot be collateralized because they are held in trust by the federal government...”^{xlix} Second, bidders were required to own or have access to a spectrum license, or licenses, covering unserved areas to participate in the Mobility Fund and Tribal Mobility Fund auctions.^l NCAI stated:

“While tribes and tribal organizations have requested that the Commission create a program to bring wireless services to tribal lands lacking such infrastructure, the Mobility Fund and Tribal Mobility Fund did little to empower tribes and tribally-controlled entities to serve their own lands. [The Tribal Mobility Fund auction] sought to provide incentives to bring commercial wireless service exclusively to tribal lands, yet it provided no new access to or opportunities for tribes or tribally-controlled entities to access vital spectrum licenses on tribal lands.”^{li}

NCAI’s comments before the FCC reiterated the need for action on WT Docket No. 11-40 to increase Tribal Nation access to commercial wireless spectrum licenses. NCAI stated that “until the Commission takes concerted action to increase tribal access to spectrum licenses, the opportunities and prosperities wireless services can offer tribal lands will continue to elude our populations.”^{lii} The FCC’s inaction on WT Docket No. 11-40 has led to missed opportunities for tribes to access commercial wireless spectrum—as illustrated in the Mobility Fund and Tribal Mobility Fund auctions. However, a recent FCC rulemaking has created an incremental step towards increasing tribal access to spectrum, albeit not a complete and comprehensive solution to the issues and barriers tribes have in accessing spectrum licenses.

The Educational Broadband Service – A New Precedent for a ‘Tribal Priority’ to Spectrum Licenses

On May 10, 2018 the Federal Communications Commission (FCC) issued a Notice of Proposed Rulemaking to repurpose spectrum previously assigned for educational use and make it available for commercial wireless services. Identified as the 2.5 GHz band, the FCC has recognized it as prime spectrum real estate to support the deployment of next generation mobile services, including those that support 5G technologies.^{liii} In proposing to repurpose the 2.5 GHz band the FCC recognized that much of the band (operating between the 2496-2690 MHz frequencies) lay dormant and unassigned. A majority of the frequencies assigned under the band were previously allocated under the Educational Broadband Service (EBS), which “permits the transmission of instructional material for the formal education of students by accredited public and private schools, colleges, and universities.”^{liiv} The FCC determined that while “there are 1,300 EBS licensees holding over 2190 licenses”, most of the current, “EBS licenses cover only about one half of the geographic area of the United States”.^{liv} Much of the 2.5 GHz band remains unassigned and unutilized in rural areas west of the Mississippi River.^{livi} Additionally, the award of EBS applications was suspended by the FCC in 1993 with only two occurrences in 1995 and 1996 allowing for an application filing window to obtain an EBS license.^{liivii}

The FCC proposed four actions regarding the 2.5 GHz band. *First*, the FCC proposed to allow for current EBS licensees to obtain additional coverage in nearby Census tracts since many current licensees have small, irregular Geographic Service Areas (GSAs) due to prior FCC modifications to licenses.^{liiii} Expanding the coverage and GSA of current EBS licenses to include additional Census tracts that the licensee covers or

intersects would address irregular shaped GSAs and consolidate fragmented service areas under a single EBS license (not adopted in the final rulemaking).^{lix} *Second*, the FCC proposed a series of priority filing windows for current EBS licensees, rural Tribal Nations, and other education entities to obtain access to the 2.5 GHz band.^{lx} Part of this proposal would allow rural Tribal Nations—with a local presence in a given license area—to receive a ‘Tribal Priority’ to unassigned 2.5 GHz spectrum “to address educational and communications needs [in] their communities...”^{lxi} The *third* proposal sought to update FCC rules for the 2.5 GHz band by removing outdated regulations that were no longer applicable while the *fourth* proposal sought comments on additional approaches to utilize the 2.5 GHz band for effective use.^{lxii}

On July 11, 2019 the FCC adopted a Report and Order to allow flexible use of the 2.5 GHz band to support next generation telecommunications and 5G deployment, as well as a Tribal Priority to EBS licenses.^{lxiii} *First*, the FCC removed the ‘educational use requirements’ for EBS licensees to use the 2.5 GHz spectrum strictly for educational purposes. Specifically, the FCC stated that it was “in the public interest to give licensees flexibility to put 2.5 GHz spectrum to its most efficient use, rather than maintaining or updating outmoded educational use requirements that have not been changed since 1998”.^{lxiv} This decision would allow current and future EBS licensees to transfer or lease their licenses for commercial wireless use rather than for instructional educational purposes.^{lxv} Several commenters, particularly those representing educational institutions were not in support of eliminating the ‘educational use requirements’ fearing that it would result in EBS licensees “losing negotiating leverage and...give commercial entities the incentive and ability to offer licensees unfavorable sale terms rather than new or renewed leases.”^{lxvi} However, the FCC stated that removing the ‘educational use requirements’ would enable current and future EBS licensees more flexibility to use such licenses for both educational and commercial purposes and this action would not affect current EBS license leases and contractual arrangements.^{lxvii} The FCC also removed leasing restrictions unique to EBS licenses, stating that the EBS lease restrictions “constrain commercial operations and deter investment, particularly in rural areas.”^{lxviii}

Opening the 2.5 GHz band to support commercial wireless use, while recognizing the inherent authority of licensees to also use the spectrum for educational purposes, benefited the adoption of a Tribal Priority to EBS spectrum in this proceeding. The FCC ruled that the Tribal Priority to EBS licenses would be granted to telecommunications companies and other entities owned and operated by a federally-recognized tribe or a tribal consortium.^{lxix} The Tribal Priority to EBS licenses would also apply to Tribal Colleges and Universities and other educational entities, provided that they are also owned and operated by a federally-recognized tribe or a tribal consortium.^{lxx} It is important to note, however, that the Tribal Priority is limited to ‘rural’ tribal lands with the FCC stating that “Tribal lands will be considered rural if they are not part of an urbanized area or urban cluster area with a population equal to or greater than 50,000.”^{lxxi} Finally, the FCC recognized that tribes had proposed “a 90-day notice period prior to the opening of the priority filing window with a 60-day window for the filing of applications” to access EBS spectrum licenses in the 2.5 GHz band.^{lxxii} Rather than establish the Tribal Priority filing window procedures in the Report and Order, the FCC directed its Wireless Telecommunications to announce these procedures in a forthcoming Public Notice.^{lxxiii}

Conclusion: Tribal Nation Access to Spectrum Licenses is a Critical Component to Bridging the Digital Divide in Indian Country

As illustrated in this Policy Overview, tribes have experienced difficulty in accessing commercial spectrum licenses to provide high-speed wireless services on tribal lands. The first-ever ‘Tribal Priority’ to spectrum was established in a 2010 AM/FM radio proceeding, but it has not been until recent months that actions to expand this Priority to commercial wireless spectrum licenses has occurred. While the 2.5 GHz proceeding establishes another precedent for a Tribal Priority, it cannot be viewed as the comprehensive solution that will create a level playing field for tribes to access spectrum. The proposals from the 2011 WT Docket No. 11-40 proceeding are still relevant and provide the most comprehensive spectrum policy overhaul needed to fully enable tribal access to commercial spectrum licenses. The proposals to enable tribes to enter into secondary market negotiations with current license holders over tribal lands as well as the Build-or-Divest proposal offer

the most meaningful policy changes that would benefit tribes across the board. The 2.5 GHz proceeding offers a one-time Tribal Priority to the spectrum located within that frequency range, whereas the WT 11-40 proceeding would ensure a Tribal Priority to all spectrum frequencies over tribal lands.

Tribes must exercise their sovereign right to access and utilize this natural resource. Spectrum frequencies are finite and as the internet and technology continues to permeate every life these frequencies will be obtained and held onto by industry because of its intrinsic value. The federal government, as trustee to Tribal Nations, must also understand and address the historical and present-day barriers that prevent tribal participation in spectrum auctions and the inability of tribes to access spectrum through secondary market mechanisms. Providing tribes with access to spectrum licenses provides an opportunity for tribes to construct their own wireless networks or leverage the license to attract service providers to bring telecommunications services to tribal lands for the benefit of their communities and economies.

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End Notes

ⁱ *Definitions: Middle Mile Infrastructure* is defined as the telecommunications link from a high-speed fiber optic backhaul network, or *core network*, to a local network for data distribution. *Last Mile Infrastructure* is defined as the telecommunications connection from a local area network to a home, business, or other type of ‘end’ facility where a user(s) is accessing the telecommunications service.

ⁱⁱ See National Telecommunications and Information Administration. “Spectrum Management”. Available at <https://www.ntia.doc.gov/category/spectrum-management>; and see Federal Communications Commission. “Radio Spectrum Allocation”. Available at <https://www.fcc.gov/engineering-technology/policy-and-rules-division/general/radio-spectrum-allocation>.

ⁱⁱⁱ See The White House, Office of the Press Secretary, “Presidential Memorandum: Unleashing the Wireless Broadband Revolution”. June, 28, 2010. Available at <https://obamawhitehouse.archives.gov/the-press-office/presidential-memorandum-unleashing-wireless-broadband-revolution>.

^{iv} *Ibid.*

^v See Federal Communications Commission. Auction 92: 700 MHz Band. July 2011. Available at <https://www.fcc.gov/auction/92>.

^{vi} See Federal Communications Commission. *In the Matter of Expanding the Economic and Innovation Opportunities of Spectrum Through Incentive Auctions*. Docket No. 12-268. October 2, 2012. Available at <https://docs.fcc.gov/public/attachments/FCC-12-118A1.pdf>.

^{vii} See Federal Communications Commission. Broadcast Incentive Auction and Post-Auction Transition. May 9, 2017. Available at <https://www.fcc.gov/about-fcc/fcc-initiatives/incentive-auctions>.

^{viii} *Ibid.*

^{ix} See Federal Communications Commission. *Public Notice: Auction of Advanced Wireless Services Licenses Scheduled for November 13, 2014; Comment Sought on Competitive Bidding Procedures for Auction 97*. AU Docket No. 14-78. May 19, 2014. Available at <https://docs.fcc.gov/public/attachments/DA-14-669A1.pdf>.

^x See Federal Communications Commission. Auction 97: Advanced Wireless Services (AWS-3). January 2015. Available at <https://www.fcc.gov/auction/97>.

^{xi} See Federal Communications Commission. Putting Auction 97 in the History Books. January 29, 2015. Available at <https://www.fcc.gov/news-events/blog/2015/01/29/putting-auction-97-history-books>.

^{xii} See The White House. “Presidential Memorandum on Developing a Sustainable Spectrum Strategy for America’s Future”. October 25, 2018. Available at <https://www.whitehouse.gov/presidential-actions/presidential-memorandum-developing-sustainable-spectrum-strategy-americas-future/>.

^{xiii} See Federal Communications Commission, Office of the Chairman. “FCC’s First-Ever High-Band 5G Spectrum Auction Begins Today: FCC Will Make Available 1.55 Gigahertz of Spectrum Through 28 GHz and 24 GHz Auctions”. November 14, 2018. Available at <https://docs.fcc.gov/public/attachments/DOC-355073A1.pdf>.

^{xiv} See Federal Communications Commission. *Public Notice: Auction of 28 GHz Upper Microwave Flexible Use Service Licenses for Next-Generation Wireless Services Closes; Gross Winning Bid Amounts Announced for Auction 101*. AU Docket No. 18-85. January 31, 2019. Available at <https://docs.fcc.gov/public/attachments/DA-19-23A1.pdf>.

^{xv} See Federal Communications Commission. *Public Notice: Auction of 24 GHz Upper Microwave Flexible Use Service Licenses Closes; Winning Bidders Announced for Auction 102*. AU Docket No. 18-85. June 3, 2019. Available at <https://docs.fcc.gov/public/attachments/DA-19-485A1.pdf>.

^{xvi} See Federal Communications Commission. *In the Matter of Policies to Promote Rural Radio Service and to Streamline Allotment and Assignment Procedures*. MB Docket No. 09-52 and RM-1158. April 2010. Available at <https://www.fcc.gov/document/policies-promote-rural-radio-service-and-streamline-allotment-and-2>.

^{xvii} See Federal Communications Commission. *In the Matter of Policies to Promote Rural Radio Service and to Streamline Allotment and Assignment Procedures*. MB Docket No. 09-52 and RM-1158. April 2010. Available at <https://www.fcc.gov/document/policies-promote-rural-radio-service-and-streamline-allotment-and-2>.

^{xviii} See Native Public Media. "Our Mission". Available at <https://www.nativepublicmedia.org/about>.

^{xix} See Federal Communications Commission. *Tribal Radio Priority*. FCC Blog by Geoffrey Blackwell, Chief, Office of Native Affairs and Policy. March 1, 2013. Available at <https://www.fcc.gov/news-events/blog/2013/03/01/tribal-radio-priority>.

^{xx} See Federal Communications Commission. *In the Matter of Policies to Promote Rural Radio Service and to Streamline Allotment and Assignment Procedures*. MB Docket No. 09-52 and RM-1158. April 2010. Available at <https://www.fcc.gov/document/policies-promote-rural-radio-service-and-streamline-allotment-and-2>.

^{xxi} *Ibid.* Pg. 6. ¶9.

^{xxii} See Federal Communications Commission. *In the Matter of Improving Communications Services for Native Nations by Promoting Greater Utilization of Spectrum over Tribal Lands*. WT Docket No. 11-40. March 2011. Available at <https://ecfsapi.fcc.gov/file/7021686654.pdf>.

^{xxiii} *Ibid.* Pg. 13, ¶35.

^{xxiv} *Ibid.* Pg. 6.

^{xxv} *Ibid.* Pg. 16.

^{xxvi} *Ibid.* Pg. 17.

^{xxvii} *Ibid.* Pg. 17-18, ¶48.

^{xxviii} *Ibid.* Pg. 18, ¶49.

^{xxix} *Ibid.*

^{xxx} *Ibid.* Pg. 18, ¶53, footnote 87.

^{xxxi} *Ibid.* Pg. 18, ¶53.

^{xxxii} *Ibid.* Pg. 18, ¶54.

^{xxxiii} *Ibid.* Pg. 19, ¶55.

^{xxxiv} See Federal Communications Commission, Electronic Comment Filing System. Filing Detail: Proceeding 11-40. Filed by the National Congress of American Indians. Available at <https://www.fcc.gov/ecfs/filing/6017116024>.

^{xxxv} *Ibid.* Available at <https://ecfsapi.fcc.gov/file/7022038976.pdf>.

^{xxxvi} See Federal Communications Commission. *In the Matter of Connect America Fund, et al.* WC Docket No. 10-90, GN Docket No. 09-51, WC Docket No. 07-135 and 05-337, CC Docket No. 01-92 and 96-45, WC Docket No. 03-109, and WT Docket No. 10-208. FCC 11-161. Released November 18, 2011. Available at <https://docs.fcc.gov/public/attachments/FCC-11-161A1.pdf>.

^{xxxvii} See Federal Communications Commission. Universal Service for High Cost Areas – Connect America Fund. Accessed October 15, 2019. Available at <https://www.fcc.gov/general/universal-service-high-cost-areas-connect-america-fund>.

^{xxxviii} See Federal Communications Commission. Universal Service: Low-Income Consumers. Accessed October 15, 2019. Available at <https://www.fcc.gov/general/universal-service-low-income-consumers>.

^{xxxix} See Federal Communications Commission. Rural Healthcare Program: Summary of the Rural Healthcare Program. Accessed October 15, 2019. Available at <https://www.fcc.gov/general/rural-health-care-program>.

^{xl} See Federal Communications Commission. E-rate: Universal Service Program for Schools and Libraries. Accessed October 15, 2019. Available at <https://www.fcc.gov/consumers/guides/universal-service-program-schools-and-libraries-e-rate>.

^{xli} See Federal Communications Commission. Universal Service. Accessed October 15, 2019. Available at <https://www.fcc.gov/general/universal-service>.

^{xlii} See Federal Communications Commission. *In the Matter of Connect America Fund, et al.* WC Docket No. 10-90, GN Docket No. 09-51, WC Docket No. 07-135 and 05-337, CC Docket No. 01-92 and 96-45, WC Docket No. 03-109, and WT Docket No. 10-208. Pg. 13, ¶ 28. FCC 11-161. Released November 18, 2011. Available at <https://docs.fcc.gov/public/attachments/FCC-11-161A1.pdf>.

^{xliii} *Ibid.*

^{xliiv} *Ibid.*

^{xli v} *Ibid.* Pg. 119, ¶322.

^{xli vi} *Ibid.* Pg. 120, ¶326.

^{xli vii} See National Congress of American Indians. *NCAI Comments on Public Notice FCC 15-49—Request for Further Comment on Issues Related to Competitive Bidding Proceeding; WT Docket Nos. 14-170 and 05-211, GN Docket No. 12-268, and RM-11395.* May 14, 2015—corrected May 20, 2015. Available at <https://ecfsapi.fcc.gov/file/60001048335.pdf>.

^{xli viii} *Ibid.*

^{xli ix} *Ibid.*

^l *Ibid.*

^{li} *Ibid.*

^{lii} *Ibid.*

^{liii} See Federal Communications Commission. *In the Matter of Amendment of Parts 1, 21, 73, 74 and 101 of the Commission’s Rules to Facilitate the Provision of Fixed and Mobile Broadband Access, Educational and Other Advanced Services in the 2150-2162 and 2500-2690 MHz Bands, and, Transforming the 2.5 GHz Band.* WT Docket No. 03-66 (Terminated), and WT Docket No. 18-120. Released May 10, 2018. Available at <https://docs.fcc.gov/public/attachments/FCC-18-59A1.pdf>.

^{li v} *Ibid.* Pg. 2, ¶2.

^{li v i} *Ibid.* Pg. 3, ¶5.

^{li v ii} *Ibid.*

^{li v iii} *Ibid.* Pg. 6, ¶4.

^{li v iii i} *Ibid.* Pg. 3, ¶5, and Pg. 6, ¶9.

^{li x} *Ibid.* Pg. 7, ¶13.

^{li x i} *Ibid.* Pg. 6, ¶9.

^{li x i i} *Ibid.* Pg. 12, ¶35.

^{li x i i i} *Ibid.* Pg. 18-19.

^{li x i i i i} See Federal Communications Commission. *In the Matter of Transforming the 2.5 GHz Band.* WT Docket No. 18-120. Released July 11, 2019. Available at <https://docs.fcc.gov/public/attachments/FCC-19-62A1.pdf>.

^{li x i v} *Ibid.* Pg. 11, ¶26.

^{li x v} *Ibid.* Pg. 6, ¶15.

^{li x v i} *Ibid.* Pg. 7, ¶18.

^{li x v i i} *Ibid.* Pg. 6, ¶17, and Pg. 7, ¶18.

lxviii *Ibid.* Pg. 13, ¶32 and ¶33.

lxix *Ibid.* Pg. 19, ¶50.

lxx *Ibid.*

lxxi *Ibid.* Pg. 22, ¶58.

lxxii *Ibid.* Pg. 23, ¶61.

lxxiii *Ibid.* Pg. 23, ¶61.