

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of)	
)	
Expanding Flexible Use of the)	GN Docket No. 18-122
3.7 GHz Band)	

To: Chief, Wireless Telecommunications Bureau
Chief, International Bureau
Chief, Office of Engineering and Technology
Chief, Office of Economics and Analytics

**COMMENTS OF
THE WIRELESS INTERNET SERVICE PROVIDERS ASSOCIATION**

The Wireless Internet Service Providers Association (“WISPA”) hereby submits its Comments in response to the Public Notice adopted by Wireless Telecommunications Bureau, the International Bureau, the Office of Engineering and Technology, and the Office of Economics and Analytics (collectively, “Bureaus”)¹ seeking focused comment on recent submissions from (1) ACA Connects, the Competitive Carriers Association and Charter Communications (the “ACA Connects Coalition Proposal”);² (2) AT&T (the “AT&T Proposal”);³ and (3) WISPA, Google LLC and Microsoft Corp. (the “Reed Study”).⁴

¹ Public Notice, *Wireless Telecommunications Bureau, International Bureau, Office of Engineering and Technology, and Office of Economics and Analytics Seek Focused Additional Comment in 3.7-4.2 GHz Band Proceeding*, GN Docket No. 18-122, RM-11791, RM-11778, DA 19-678 (rel. July 19, 2019) (“Public Notice”). See 84 Fed. Reg. 35365 (July 23, 2019).

² See Letter from Ross Lieberman, ACA Connects, et al., to Marlene H. Dortch, FCC Secretary, GN Docket No. 18-122 (filed July 2, 2019) (“ACA Connects Coalition Proposal”); Letter from Pantelis Michalopoulos, ACA Connects Counsel, to Marlene H. Dortch, FCC Secretary, GN Docket No. 18-122 (filed July 9, 2019), Attachment (“Cartesian Study”).

³ See Letter from Henry Hultquist, AT&T Services, Inc., to Marlene H. Dortch, FCC Secretary, GN Docket No. 18-122 (filed May 23, 2019) (“AT&T May 23 *Ex Parte*”); Letter from Raquel Noriega, AT&T Services, Inc., to Marlene H. Dortch, FCC Secretary, GN Docket No. 18-122 (filed June 6, 2019) (“AT&T June 6 *Ex Parte*”).

⁴ See Letter from Wireless Internet Service Providers Association, Google LLC, and Microsoft Corp. to Marlene H. Dortch, FCC Secretary, GN Docket No. 18-122 (filed July 15, 2019) (“WISPA/Google/Microsoft Letter”).

Introduction

WISPA is pleased that the Bureaus are taking steps to ensure that Commission action in this proceeding is based on a full record that considers *all* viable proposals, not just those that are grabbing headlines based on novel and “fiendishly complex” constructs.⁵ When WISPA and other members of the Broadband Access Coalition (“BAC”) launched this proceeding with a Petition for Rulemaking in June 2017, WISPA believed then, as it does now, that coordinated sharing among receive-only earth stations and fixed wireless point-to-multipoint (“P2MP”) is entirely feasible, would maximize spectral efficiency, and would provide millions of Americans, especially in rural areas, access to broadband services at gigabit and near gigabit speeds. The Reed Study absolutely confirms these attributes – relying on conservative estimates and standards-based assumptions, and automating coordination that is *today* leading to successful mid-band deployments,⁶ the Reed Study demonstrates that co-channel coexistence among P2MP and receive-only C-band earth stations will create significant opportunities for more than 80 million Americans in 78 percent of the geographic area of the country to access gigabit or near-gigabit broadband service.⁷ The most readily available amount of this currently underutilized spectrum will be in rural areas where earth stations are less prevalent.⁸

As for the ACA Connects Coalition Proposal and the AT&T Proposal, they – like the fatally (and increasingly) flawed C-Band Alliance series of proposals – rely on self-serving concepts that fall far short of achieving the public interest benefits inherent in the BAC proposal

⁵ Letter from Michael P. Goggin, AT&T, to Marlene H. Dortch, FCC Secretary, GN Docket No. 18-122 (filed July 16, 2019) at 1.

⁶ See Letter from Louis Peraertz, WISPA Vice President, et al., to Marlene H. Dortch, FCC Secretary, GN Docket No. 18-122 (filed Aug. 6, 2019) (showing that Part 90 P2MP base stations are being deployed within 10 km of extended C-band earth stations with the consent of earth station operators). See 47 C.F.R. §90.1331.

⁷ See Reed Study at 3, 42; WISPA/Google/Microsoft Letter at 2.

⁸ See Reed Study at 3, 42; WISPA/Google/Microsoft Letter at 2.

and confirmed by the Reed Study. They present no viable means for cost-effective, high-speed broadband services to be deployed to rural Americans that today lack the digital opportunities of their urban counterparts. Bridging the digital divide is “the Commission’s top priority”⁹ and mid-band spectrum is ideal for the coverage necessary to make this happen, compelling the Commission to reject the ACA Connects Coalition Proposal and the AT&T Proposal and to adopt the BAC’s legally sound and straightforward proposals that can be implemented soon after a Commission order without litigation risk or extraordinary complexity.

Discussion

I. THE ACA CONNECTS COALITION PROPOSAL FAILS TO ADDRESS THE NEEDS OF RURAL AMERICANS

The ACA Connects Coalition proposal suffers from a number of flaws, chief among them the absence of any regard for ensuring that there is sufficient mid-band spectrum to enable access to spectrum for cost-effective fixed wireless broadband services. Cast as a “win-win”¹⁰ – a questionable proposition – it makes no effort to achieve the third “win:” the ability to allow coordinated use of a portion of the C-band to be shared among receive-only earth stations and point-to-multipoint broadband in the near future. The Commission should reject this proposal.

First, the ACA Connects Coalition establishes a false dichotomy by comparing its proposal only to the C-Band Alliance’s proposal.¹¹ Though the ACA Connects Coalition is quite correct that the CBA “refarming proposal . . . is emphatically one-sided” because it “benefits one category of current users – the satellite operators themselves,”¹² the ACA Connects Coalition proposal fares only marginally better. It proposes a simpler band-clearing and auction approach

⁹ *Rural Digital Opportunity Fund*, Notice of Proposed Rulemaking, WC Docket Nos. 19-126 and 10-90, FCC 19-77 (rel. Aug. 2, 2019) (“*RDOF NPRM*”) at 2.

¹⁰ ACA Connects Coalition Proposal at 3.

¹¹ *See id.* at 2; Cartesian Study at 3.

¹² ACA Connects Coalition Proposal at 1.

to make at least 370 megahertz available for 5G services, but arbitrarily separates receive-only earth station registrants into two classes: (1) MVPDs and programmers that would receive reimbursement all of their costs (expansively defined), and (2) TV and radio broadcasters that would receive the consolation prize of being crammed into whatever spectrum remains. The ACA Connects Coalition makes no effort to explain why this particular division makes sense or how such a distinction could possibly be defended on appeal. Moreover, the ACA Connects Coalition proposal would leave only 130 megahertz (or less) for the remaining earth stations, which would be an insufficient amount to encourage investment and deployment of the band for P2MP services if coordinated sharing is permitted. Notably, the ACA Connects Coalition does not even suggest that this small amount of spectrum can be shared, perhaps understanding that the economic and technical feasibility of its proposal is questionable at best.

Second, there is a decided lack of consensus within the mobile wireless industry on how much spectrum should be cleared and auctioned. The table below summarizes the positions that the mobile wireless carriers have taken in the record:¹³

	AT&T	Verizon	T-Mobile	CCA
Spectrum for Flexible Use (MHz)	At least 230-250 ¹⁴	At least 200 ¹⁵	300-500 ¹⁶	370 ¹⁷

So, while the ACA Connects Coalition magnanimously asserts that its proposal “satisfies the needs of prospective 5G users by freeing up at least 370 megahertz (and likely more) of the C-

¹³ Sprint has made no proposal in the record.

¹⁴ See AT&T Reply Comments at 7 (authorizations for flexible terrestrial use would cover “a minimum of 200 MHz”); AT&T June 6 *Ex Parte*, Attachment at 5 (adding possible “Adjacent Licenses” of 30-50 MHz).

¹⁵ See Verizon Comments at 9-10; Verizon Reply Comments at 10.

¹⁶ See Letter from Steve B. Sharkey, T-Mobile, to Marlene H. Dortch, FCC Secretary, GN Docket No. 18-122 (filed Feb. 15, 2019) at 2-3, 3 n.6; Letter from Steve B. Sharkey, T-Mobile, to Marlene H. Dortch, FCC Secretary, GN Docket No. 18-122 (filed July 12, 2019) at 6-7, 7 n.29.

¹⁷ See July 2 ACA Connects Coalition Letter at 3-4.

band spectrum on a nationwide basis in a quick timeframe,”¹⁸ the basis of its claim for such a substantial “refarming” is of its own making, not of the mobile wireless industry interested in providing 5G services. Indeed, two years into this proceeding, there is no consensus among the mobile wireless carriers on how much C-band spectrum they will require for their future needs. That is not surprising, given that some of that demand – and maybe all of it – may be satisfied with Citizens Broadband Radio Service (“CBRS”) GAA or PAL spectrum. This is especially true in many rural areas, where the major mobile wireless carriers have not fully deployed their existing lower-frequency spectrum, and thus would be more likely to add capacity below 3 GHz, leaving the C-band unused.¹⁹ In sum, any assertion that some specific amount of C-band spectrum must be cleared is inherently speculative, something the record appropriately reflects.

Third, this exposes the ACA Connects Coalition’s true motive of securing auction-financed fiber replacement for just one category of earth stations – unsurprisingly, the category of earth stations represented by ACA Connects. Here again, however, their proposal is riddled with deficiencies. As an initial matter, there is no sense from MVPDs and programmers that they even desire fiber replacement, much less want to have it foisted upon them as a mandatory outcome.²⁰ Indeed, the record is replete with earth station operators – including Charter and ACA Connects – disputing the notion that alternatives to C-band satellite services are desirable

¹⁸ July 2 ACA Connects Coalition Letter at 3.

¹⁹ See Reardon, Marguerite, *Why rural areas can’t catch a break on speedy broadband* (Oct. 23, 2018), available at <https://www.cnet.com/news/why-rural-areas-cant-catch-a-break-on-speedy-broadband/> (According to Wave Wireless’ President and founder Galen Manners, “[w]e need access to good midband spectrum that we can afford,” he said. “Otherwise the big players are going to gobble it up for mobile use, it’ll sit underutilized, and rural America won’t be able to get access to any of it.”)

²⁰ See Letter from Rick Kaplan, NAB, to Marlene H. Dortch, FCC Secretary, GN Docket No. 18-122, MD Docket No. 19-105 (filed Aug. 1, 2019) at 1 (“Forcing immediate reallocation of spectrum above a level that would preserve C-Band service for content distribution could lead to service disruption for the viewers and listeners broadcasters serve.”).

or even feasible.²¹ Commission relocation policies are founded on principles of technological neutrality, not on an industrial policy that compels certain distribution technologies over others.²² As a consequence of this forced migration, MVPDs and programmers would be required to enter into infeasible rights of use (“IRUs”) with fiber companies within a relatively short period of time,²³ a scenario that would inevitably give substantial leverage to the fiber companies to extract non-market-based fees absent massive Commission policing of fiber pricing.²⁴

Fourth, the ACA Connects Coalition asserts that this forced fiber replacement scheme will allow for “higher dark- and lit-fiber capacity in rural areas,”²⁵ the same areas that would benefit from the WISPA/Google/Microsoft proposal. But the proposal raises more questions than it answers. Will existing fiber providers, or LECs with monopoly fiber routes under meet-point arrangements, be required to offer IRUs? Will the Commission require that any fiber used to replace C-band earth stations be subject to open access requirements? Will the Commission

²¹ See, e.g., ACA Connects Reply Comments at 1 (price increases and restriction of video distribution “would be especially severe in rural and less dense areas where delivery of video feeds by fiber would be extremely expensive if not impossible”); Charter Comments at 4 (“Use of alternative satellite spectrum ... is not as desirable.... And fiber delivery is vastly more expensive....”); Comcast Comments at ii (moving to fiber “may work in some areas for some providers, particularly in dense urban areas, doing so on a nationwide basis would require monumental investment”); NCTA Comments at 8-14 (“In large sections of the country, it will not be feasible or cost-effective to connect cable headends to fiber.”).

²² See, e.g., *Amendment of Part 2 of the Commission’s Rules to Allocate Spectrum Below 3 GHz for Mobile and Fixed Services to Support the Introduction of New Advanced Wireless Services, including Third Generation Wireless Systems*, 20 FCC Rcd 15866, 15875 (¶16) (2005) (“Under this [comparable facilities] policy, incumbents must be provided with replacement facilities that allow them to maintain the same service in terms of: (1) throughput – the amount of information transferred within the system in a given amount of time; (2) reliability – the degree to which information is transferred accurately and dependably within the system; and (3) operating costs – the cost to operate and maintain the system. Thus, the comparable facilities requirement does not guarantee incumbents superior systems at the expense of new entrants.”) (footnotes omitted).

²³ See Cartesian Study at 8.

²⁴ It is thus not surprising that the Fiber Broadband Association (“FBA”) recently leapt to the support of the ACA Connects Coalition. The FBA’s evidence-free two-page filing appears to focus on those urban areas that already benefit from readily available fiber, as it utterly fails to address the substantial financial and operational barriers to extending fiber to all cable headends. See Letter from Lisa R. Youngers, FBA, to Marlene H. Dortch, FCC Secretary, GN Docket No. 18-122 (filed July 26, 2019) at 1-2.

²⁵ Cartesian Study at 15.

require non-recurring and recurring fees for interconnection to be reasonable and non-discriminatory? What happens when earth station operators are unable to obtain fiber access within the timelines set by the Commission? Would such timelines be enforceable in any real sense? Notably, several broadcasters have raised these and other serious concerns.²⁶ Although ACA has, on the eve of the comment filing deadline, indicated that “within weeks” it will provide “additional material,”²⁷ any such responses – even if they do answer the questions posed above – cannot overcome the deficiencies surrounding the proposed clearing of 370 megahertz and the lack of consideration for rural broadband deployment.

Moreover, the ACA Connects Coalition Proposal’s feigned support for rural broadband is severely undermined by two further defects. For one, the proposal asserts that “~100 MVPD earth stations are in areas where there is no broadband service within a 3 mile radius, affecting ~100K households.”²⁸ But the coalition fails to explain how its proposal would bring broadband service to those households. By contrast, the BAC proposal would enable 80 million people to gain access to co-channel spectrum for P2MP in 300 megahertz of shared spectrum – and millions more that can access non-co-channel spectrum for rural broadband services.

Also, the ACA Connects Coalition proposal would reduce competition in the impacted areas. Today, a new MVPD entrant, be it a cable company adding first service to a rural town or an ISP seeking to add video services to its product mix, can use satellite downlinks to receive

²⁶ See, e.g., Letter from Karen R. Johnson, LinkUp Communications Chairman, to Marlene H. Dortch, FCC Secretary, GN Docket No. 18-122 (filed Aug. 3, 2019) at 1 (“Agreements will need to be put in place to ensure protection of our customers’ valuable content. There is also the issue of deploying the fiber itself. Even in urban areas, the assertion that all cable headends could be moved off satellite and onto fiber in 18 months is, in our experience, too aggressive and not realistic.”); Letter from Mark W Croom, Riverfront Broadcasting, LLC Engineer, to Marlene H. Dortch, FCC Secretary, GN Docket No. 18-122 (filed Aug. 3, 2019) (same).

²⁷ Letter from Ross Lieberman, ACA Senior Vice President, to Marlene H. Dortch, FCC Secretary, GN Docket No. 19-122 (filed Aug. 6, 2019).

²⁸ Cartesian Study at 15.

hundreds of video channels that it can in turn offer to its subscribers. The proposal offers fiber to incumbent cable operators but slams the door on new operators, who will lose their satellite option without receiving subsidized fiber. Rural consumers thus face less, not more, competition for MVPD services – a situation made far worse if new entrants cannot add MVPD services either in currently unserved areas or in competition with incumbent cable operators.

And then there is the timing aspect. The ACA Connects Coalition estimates that it will take five years to transition earth stations to fiber in “[r]ural, remote and other hard-to-build markets.”²⁹ As the BAC and WISPA have made clear, however, shared P2MP use can begin as soon as the Commission adopts the minor changes to Part 101 proposed in the BAC’s rulemaking petition, coordination processes are enhanced, and new equipment can be certified. Coordination will be orders of magnitude easier than what is required for CBRS because there are no Federal or shipborne users requiring protection and mobile use would not be permitted. In fact, coordination is occurring today in the 3650-3700 MHz band to enable sharing among extended C-band earth stations and Part 90 P2MP operations.³⁰ Equipment certified and in use in this band under Part 90 and equipment certified (or to be certified) under Part 96 for CBRS can easily be adapted for use in the C-band. Rural Americans would be immediate beneficiaries of the coordinated sharing approach – a far better outcome than being consigned to five years of government-mandated industrial market-setting and invasive Commission oversight that, once again, leaves them at the end of the line.

In sum, the ACA Connects Coalition Proposal crumbles under its own weight because of numerous unresolved – and likely unresolvable – questions surrounding industrial policy, timing,

²⁹ *Id.* at 2, 11.

³⁰ See note 6, *supra*. See also *Amendment of the Commission’s Rules with Regard to Commercial Operations in the 3550-3650 MHz Band*, 30 FCC Rcd 3959, 3966 (¶19) (2015).

and overall approach, especially in light of the decided lack of demand in the record for both 370 megahertz of cleared spectrum and five-year replacement for a preferred class of earth stations.

II. THE AT&T PROPOSAL FAILS TO ACKNOWLEDGE, MUCH LESS ASSESS, THE BENEFITS OF COORDINATED SHARED USE

WISPA draws the Commission's attention to two aspects of the AT&T Proposal.³¹ First, while AT&T started this proceeding with a staunch defense of "full-band, full-arc" protection,³² it has now come to the conclusion that the Commission should, in re-packing C-band satellite spectrum, apply reasonable limitations to that policy.³³ This evolution of AT&T's position calls into question similarly strident early defenses of "full-band, full-arc." While the Commission has heard repeated broad assertions from earth station and satellite operators that "full-band, full-arc" is absolutely necessary, the record lacks any serious technical study substantiating the practice or showing how reasonable modifications to it would negatively impact reliability of C-band satellite operations. Clearly, and as AT&T has now recognized, modifications to "full-band, full-arc" protection are not only feasible but necessary in order to ensure the C-band is put to its fullest use. The AT&T Proposal thus demonstrates that the Commission should view continued broad but shallow defenses of "full-band, full-arc" with deep skepticism.

Second, the AT&T Proposal suffers from the same defect as the ACA Connects Coalition Proposal: not once does it acknowledge (1) that fixed services are co-primary in the band, or (2) the substantial benefits to unserved and underserved Americans from sharing among C-band earth stations and fixed P2MP service. To the contrary, the proposal unrelentingly focuses on

³¹ To the extent AT&T's proposal focuses on the technical parameters surrounding mobile broadband and C-band satellite adjacent-band coexistence, WISPA has nothing to add to the record at this time.

³² See AT&T Comments at 14-15 ("Indeed, the loss of C-band earth station operator's [*sic*] 'full band full arc' rights in the remaining FSS C-band would stifle the C-band services market and render it unsustainable.").

³³ See AT&T May 23 *Ex Parte* at 12-14.

the benefits of clearing some C-band spectrum for 5G services in order to achieve a “win-win,” while ignoring the “win-win-win” of 5G spectrum, robust C-band satellite services, and an expansion of fixed wireless broadband services to more than 80 million Americans, many of whom reside in rural areas. So while the AT&T Proposal may illustrate why the Commission should no longer credit facile defenses of “full-band, full-arc,” it also unfortunately exemplifies the continued binary focus on satellite versus 5G mobile – a focus that is so narrow as to exclude the larger consideration of the public interest and “the Commission’s top priority.” The BAC proposal, the substantial technical evidence in the Reed Study that demonstrates its efficacy and viability, and the number of parties endorsing it demand serious Commission consideration and disposition of at least equal import with the myriad other proposals on the record.

Conclusion

The ACA Connects Coalition and AT&T proposals pale in comparison to the “win-win-win” proposal advanced by the BAC, WISPA and others. The Commission should adopt that proposal as soon as possible so that rural Americans can begin to enjoy the benefits of fixed broadband in their homes, farms, and businesses, consistent with the Commission’s recognition that “[b]y improving access to modern communications services, we can help provide individuals living in rural America with the same opportunities as their urban counterparts.”³⁴

Respectfully submitted,

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August 7, 2019

³⁴ *RDOF NPRM* at 5.