

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554**

In the Matter of)	
)	
Use of Spectrum Bands Above 24 GHz For Mobile Radio Services)	GN Docket No. 14-177
)	
)	
Establishing a More Flexible Framework to Facilitate Satellite Operations in the 27.5-28.35 GHz and 37.5-40 GHz Bands)	IB Docket No. 15-256
)	
)	
Petition for Rulemaking of the Fixed Wireless Communications Coalition to Create Service Rules for the 42-43.5 GHz Band)	RM-11664
)	
)	
Amendment of Parts 1, 22, 24, 27, 74, 80, 90, 95, and 101 To Establish Uniform License Renewal, Discontinuance of Operation, and Geographic Partitioning and Spectrum Disaggregation Rules and Policies for Certain Wireless Radio Services)	WT Docket No. 10-112
)	
)	
Allocation and Designation of Spectrum for Fixed-Satellite Services in the 37.5-38.5 GHz, 40.5-41.5 GHz and 48.2-50.2 GHz Frequency Bands; Allocation of Spectrum to Upgrade Fixed and Mobile Allocations in the 40.5-42.5 GHz Frequency Band; Allocation of Spectrum in the 46.9-47.0 GHz Frequency Band for Wireless Services; and Allocation of Spectrum in the 37.0-38.0 GHz and 40.0-40.5 GHz for Government Operations)	IB Docket No. 97-95

**COMPETITIVE CARRIERS ASSOCIATION REPLY TO OPPOSITIONS TO
PETITIONS FOR RECONSIDERATION**

Pursuant to Section 1.429 of the Federal Communications Commission's

("Commission's" or "FCC's") Rules, Competitive Carriers Association ("CCA")¹ respectfully

¹ CCA is the nation's leading association for competitive wireless providers and stakeholders across the United States. CCA's membership includes nearly 100 competitive wireless providers ranging from small, rural carriers serving fewer than 5,000 customers to regional and national providers serving millions of customers. CCA

submits this Reply to Oppositions to CCA’s Petition for Reconsideration (“CCA’s Petition” or “Petition”) of certain rules adopted in the Spectrum Frontiers *Report and Order*, in the above-captioned proceedings (“*Report and Order*”).² The record reflects strong support for many policies described by CCA’s Petition, including increasing exclusively-licensed millimeter wave (“mmW”) spectrum and revising licensing and operability requirements to better ensure continued innovation and deployment. As the record reflects, CCA’s proposals serve the public interest by encouraging competition and promoting efficient 5G deployment. Accordingly, CCA urges the Commission to quickly adopt CCA’s recommendations.

DISCUSSION

I. THERE IS STRONG RECORD SUPPORT FOR CCA’S PETITION.

The strong support for CCA’s Petition underscores the need for Commission reconsideration of many rules adopted in the *Report and Order*.³ For instance, several commenters agree that incumbent LMDS licensees should be permitted to keep their original license areas, and otherwise be exempt from new performance requirements.⁴

also represents approximately 200 associate members including vendors and suppliers that provide products and services throughout the mobile communications supply chain.

² *Use of Spectrum Bands Above 24 GHz For Mobile Radio Services et al.*, GN Docket No. 14-177 *et al.*, Report and Order and Further Notice of Proposed Rulemaking, FCC 16-89 (rel. July 14, 2016) (“*Report and Order*”). The Order was published in the Federal Register on November 14, 2016. *Use of Spectrum Bands Above 24 GHz for Mobile Radio Services*, 91 Fed. Reg. 79,894 (Nov. 14, 2016).

³ To the extent commenters oppose the CCA Petition on a procedural basis, CCA submits that these arguments are without merit because CCA’s requests clearly are in the public interest as further detailed in its Petition.

⁴ *See, e.g.*, Blooston Rural Carriers Recon. Comments at 1-2 (filed Jan. 31 2017); Fixed Wireless Communications Coalition Recon. Comments at 9 (filed Jan. 31, 2017) (“FWCC Comments”); Skyriver Communications, Inc. Opposition at 8-9 (filed Jan. 31, 2017) (“Skyriver Opposition”).

The FCC’s new rules unacceptably set up rural LMDS licensees for failure and ultimately may result in reduced service to rural areas.⁵ Many rural incumbent licensees cannot shoulder costs⁶ for exponential new and unexpected buildout requirements⁷ nor can they access equipment enabling mobile service in the 28 GHz band, much less 5G service. Indeed, the rural LMDS licensees are “unaware of any technologies that will accommodate mobile service in the 28 GHz band in rural areas [at this time],”⁸ rendering the new buildout requirements “not just rigorous but *unachievable*.”⁹ If rural LMDS licensees can’t provide mobile service to newly-built-out areas, the Commission has effectively robbed rural licensees of any hope to realize the full benefit of their investment. As CCA and rural LMDS licensees have pointed out, rural unpopulated areas may see growth in time.¹⁰ Further, a rural carrier should not be forced to deploy needless infrastructure to keep its license after investing substantial resources to deploy and meet buildout requirements. Accordingly, the FCC should not subdivide current LMDS licenses.

⁵ Skyriver Opposition at 8-9.

⁶ As Skyriver Communications, Inc. (“Skyriver”) and a coalition of rural LMDS license-holders emphasized, revising the LMDS license service areas would create significant administrative burdens for small carriers who have already created business and construction plans to suit current spectrum license terms. Skyriver Opposition at 8-9; Rural LMDS Licensees Petition for Reconsideration at 4-5 (filed Dec. 14, 2016) (“Rural LMDS Licensees Petition”).

⁷ Rural LMDS Licensees Petition at 4-5.

⁸ *Id.* at 6.

⁹ *Id.* at 5, fn. 15 (emphasis added).

¹⁰ *Id.* at 5. CCA applauds the Commission for its recent action with respect to Mobility Fund II. Establishing an effective challenge process for Form 477 data, after first seeking comment in a *Further Notice*, will provide stakeholders and regulators more accurate rural coverage information. This will ensure federal funding is best allocated to close the digital divide and create coverage opportunities for all Americans. See *FCC Advances Seamless Nationwide Access to Mobile Voice and Broadband Service Through Mobility Fund II*, Public Notice (rel. Feb. 23, 2017).

The record also highlights the need to reevaluate the adopted sharing regime for the 37-37.6 GHz band, as the resulting uncertainty will deter investment and innovation, and delay deployment.¹¹ Ultimately, the FCC’s rules reduce the value and utility of the 37-37.6 GHz band, the “crown jewel” of this proceeding. Nokia shares in these concerns, recognizing that the FCC has unnecessarily “injected complexity” into the question of how different band segments will be used and when they will be available.¹² To prevent these harms and maximize the value of the 37-37.6 GHz band, the FCC should reconsider the current rule and license this spectrum for exclusive commercial wireless use. Relatedly, CCA urges the FCC to reject arguments on the record by satellite providers that are seeking revised and increased sharing access to mmW spectrum and requesting unnecessary limitations on future terrestrial mobile use. These proposals would completely undermine the framework established by the FCC and would decrease the utility of mmW spectrum for mobile terrestrial use which, at 3.25 gigahertz of the 10.85 gigahertz made available by the *Report and Order*, is already in scant supply.¹³

In addition to reconsidering the 37-37.6 GHz band sharing regime, delaying the imposition of an operability requirement across the 37/39 GHz band, or at the very least,

¹¹ See T-Mobile USA, Inc. Opposition at 4 (filed Jan. 31, 2017). Commissioner O’Rielly has recognized that “there is also opposition to the shared use of the lower 600 MHz of the 37 GHz band between the federal government and multiple commercial users . . .” *Report and Order*, Statement of Commissioner Michael O’Rielly Approving in Part, Dissenting in Part at 2 (“Commissioner O’Rielly Statement”).

¹² Nokia Recon. Comments at 11 (filed Jan. 31, 2017) (“Nokia Comments”).

¹³ See, e.g., SES Americom, O3b Limited Opposition (filed Jan. 31, 2017); Lockheed Martin Corporation Recon. Comments (filed Jan. 31, 2017); EchoStar Satellite Operating Corporation, Hughes Network Systems, LLC Recon. Comments (filed Jan. 31, 2017). Several parties support rejecting the satellite requests. See, e.g., T-Mobile Opposition; CTIA Opposition (filed Jan. 31, 2017); Straight Path Opposition (filed Jan. 31, 2017); Skyriver Opposition at 3-8; Intel Corp. Recon. Comments at 9-14 (filed Jan. 31, 2017); FWCC Comments at 7-9; Nokia Comments at 3-9; 5G Americas Opposition (filed Jan. 31, 2017).

delaying the application of this requirement to the Lower 37 GHz band is supported by the record.¹⁴ As CCA explained, prematurely applying an operability requirement to the Lower 37 GHz band segment before a sharing regime is developed “would delay equipment development, investment, and deployment across the entire band.”¹⁵ PK and OTI disagree, stating that operability “encourages a mass-market device ecosystem for small providers and promotes competition.”¹⁶ While that is typically the case in a situation where a band’s technical and operational characteristics have been fully determined, is the same reasoning does not apply where a future sharing regime will be implemented to one part of a band, and may render that “mass market device ecosystem” obsolete. Reconsidering this rule is “reasonable”¹⁷ and necessary to ensure that the operability requirement does not encumber deployment of 5G services into the band.¹⁸ CCA has been and will continue to be a staunch supporter of interoperability because of the economic and consumer benefits it brings. However, the Commission’s proposed operability rules will not achieve the same benefits at this time. CCA’s proposal attempts to ensure operability requirements are implemented properly with no

¹⁴ See, e.g., FWCC Comments at 10-11; Nokia Comments at 11-12. See also T-Mobile USA, Inc. Petition for Reconsideration at 10-12 (filed Dec. 14, 2016) (“T-Mobile Petition”); Petition for Reconsideration of the Telecommunications Industry Association at 5-7 (filed Dec. 14, 2016).

¹⁵ CCA Petition at 14.

¹⁶ Public Knowledge and New America’s Open Technology Institute Opposition at 12 (filed Jan 31, 2017).

¹⁷ Dynamic Spectrum Alliance supports retaining an operability requirement that applies to both the lower and upper portion of the 37 GHz band but also recognizes that it may be reasonable to allow devices certified only for operation above 37.6 GHz until the sharing mechanism is finalized on the lower band segment. See Dynamic Spectrum Alliance Opposition at 10 (filed Jan. 31, 2017).

¹⁸ See, e.g., FWCC Comments at 10-11; Nokia Comments at 11-12.

unintended consequences. Interoperability becomes irrelevant, however, if one carrier owns entire bands of spectrum. When best use cases emerge for the 37-37.6 GHz band, CCA will likely ask the Commission to revisit imposing appropriate operability requirements.¹⁹

Finally, there is near-universal agreement to eliminate mandatory cybersecurity reporting by wireless licensees.²⁰ Chairman Pai explicitly recognized that the FCC “lack[s] the expertise and authority to dive headlong into this issue . . . [t]hese are issues that are better left for security experts to handle in a more comprehensive way.”²¹ Commissioner O’Rielly also agreed that “wireless providers have every incentive to ensure the soundness of their networks.”²² Further, commenters expressed concern that the FCC’s failure to propose and seek comment on the rule violated the Administrative Procedures Act.²³ CCA agrees with Skyriver that “lack of notice not only violates the law, but has also led to poor public policy.”²⁴ There are indications that a

¹⁹ CCA agrees that operability requirements are important, particularly for small and regional carriers lacking the necessary leverage with original equipment manufacturers (“OEMs”) to secure tailored devices. The FCC could, to address these concerns in the future, consider United States Cellular’s proposal that mobile/transportable devices be capable of receiving access across the entirety of the 37-40 GHz band, but only be capable of transmitting in the 37.6-40 GHz band segment. *See* United States Cellular Corporation Opposition at 6 (filed Jan. 31, 2017).

²⁰ *See, e.g.*, Skyriver Opposition at 12-14.

²¹ *Report and Order*, Statement of Chairman (then Commissioner) Ajit Pai, Approving in Part and Concurring in Part at 2-3 (“Chairman (then Commissioner) Pai Statement”). Recent actions taken by Chairman Pai further support reconsidering the cybersecurity requirements. For instance, the Chairman recently rescinded a related *Notice of Inquiry*, released by the Commission under Chairman Wheeler, that sought comment on the current state of security planning for 5G, including responsibilities surrounding cybersecurity assurance across the 5G ecosystem. *See In the Matter of Fifth Generation Wireless Network and Device Security*, PS Docket No. 16-353, Order, DA 17-131 (PSHSB) (rel. Feb. 3, 2017).

²² Commissioner O’Rielly Statement at 2.

²³ *See, e.g.*, Skyriver Opposition at 12-14;

²⁴ *Id.*

national cybersecurity initiative will soon emerge, likely involve the Commission as well as competitive carriers and other critical infrastructure providers.²⁵ Accordingly, the Commission should refrain from adding additional administrative burdens and uncertainty where cybersecurity is concerned.

In light of broad record support, and the gravity of the *Spectrum Frontiers* proceeding, CCA urges the Commission to implement these requests for reconsideration.

II. THE FCC SHOULD REJECT ARGUMENTS MINIMIZING THE NEED FOR IN-BAND AGGREGATION LIMITS.

CCA's request for in-band aggregation limits is born of a concern that rampant consolidation of critical resources will ultimately lead to heavy-handed regulation, as was the case in the past. Accordingly, the Commission should reject proposals to prevent in-band aggregation through the adoption of spectrum aggregation limits in each disparate mmW band.²⁶ Submitting that aggregation limits should be reexamined if operational issues arise, the Commission has an obligation to immediately address anti-competitive consolidation already occurring, as the largest carriers move to control vast swaths of GHz spectrum.

Most recently, the FCC approved a recent Verizon and Nextlink ("XO") transaction, granting Verizon access to *all* 850 MHz of the 28 GHz spectrum.²⁷ This transaction highlights

²⁵ Jennifer R. Martin, Release of Cybersecurity Executive Order May Have Notable Impact in Communications, Energy, and Defense Industrial Base Critical Infrastructure Sectors (Feb. 20, 2017), *available at* <http://www.natlawreview.com/article/release-cybersecurity-executive-order-may-have-notable-impact-communications-energy>.

²⁶ *See* Verizon's Partial Opposition to Competitive Carriers Association's Petition for Reconsideration (filed Jan. 31, 2017).

²⁷ Verizon was approved to lease XO's licenses, covering 65% of the POPs for the LMDS service band in the top 60 markets nationwide, with a potential option to acquire all of this spectrum from XO. *See Application of Cellco Partnership d/b/a Verizon Wireless and Nextlink Wireless, LLC For Consent to Long-Term De Facto Transfer Spectrum*

the need for competitors in a market and/or spectrum band through in-band or in-market aggregation rules. It comes as no surprise that Verizon opposes CCA's proposal, for as the rules currently stand, Verizon can continue to aggregate whole bands of mmW spectrum without FCC intervention. The spectrum aggregation limits CCA proposes are not heavy-handed regulations, but rather a request that the Commission throw the proverbial "red flag" more willingly when consolidation concerns arise.

The fact that some carriers are already equipped to make use of mmW spectrum assets does not mean those carriers should be permitted to immediately acquire the lion's share of 5G-capable spectrum. Verizon's option to purchase all of XO's spectrum, coupled with AT&T's recent announcement of its planned purchase of FiberTower, another significant mmW spectrum holder, will allow both parties a significant first mover advantage in the mmW space.²⁸ Adopting an in-band spectrum aggregation limit would leave room for competitive carriers, who may not yet have resources to justify purchasing mmW spectrum, to compete in the 5G ecosystem at a later date. Or, at least not become entirely excluded.

Leasing Arrangement, ULS File No. 0007162285, Memorandum Opinion and Order, DA 16-838 (WTB 2016).

²⁸ The 700 MHz A Block was effectively limited to AT&T in an interoperability-free marketplace. Consumers continue to pay the price for competitive carriers being locked out of 4G opportunities. CCA also notes the recent enforcement action against Straight Path provides another opportunity for consolidated ownership of 5G spectrum. Straight Path holds "735 millimeter wave licenses in the 28 GHz and 39 GHz bands and an average of 620 MHz in the top 30 U.S. markets," representing "95 percent of the commercially available 39 GHz spectrum licenses as well as a significant portion of available 28 GHz spectrum, including in key markets like New York and San Francisco." In January, the FCC announced that unless it offloads its licenses within the next year, Straight Path will have to pay an \$85 million fine or surrender all of its remaining licenses to the FCC. Diana Goovaerts, *Straight Path Gets a Loan to Pay FCC Fine While It Figures Out Next Move* (Feb. 08, 2017), *available at* <https://www.wirelessweek.com/news/2017/02/straight-path-gets-loan-pay-fcc-fine-while-it-figures-out-next-move>; *see also FCC Fines Straight Path \$100 Million to Settle Investigation for Failure to Deploy Wireless Service*, Public Notice (rel. Jan. 12, 2017).

More broadly, the public interest suffers if the mobile marketplace stagnates at the feet of two dominant providers dictating how mmW spectrum is used, and whom it benefits.

Accordingly, the FCC should adopt an in-band aggregation limit.

III. THE FCC SHOULD REJECT ARGUMENTS OPPOSING LICENSED OPERATIONS IN THE 64-71 GHZ BAND.

With 5G deployments around the corner, the decision to allocate the entire 64-71 GHz band for unlicensed use will negatively impact the future of mobile terrestrial 5G services. Because of the proven value of licensed spectrum, the FCC must not miss the opportunity to license at least a portion of the 64-71 GHz band. Microsoft recognizes that the 64-71 GHz band is suitable for mobile use, but opposes the arguments for licensed spectrum in this band made by CCA, CTIA and T-Mobile because they “fail to recognize the numerous benefits unlicensed use across the 57-71 GHz band will generate.”²⁹ CCA does not dispute the value of unlicensed spectrum; rather, CCA argues that exclusive license of this band, or at least a portion of it, will *optimize* its use and that the *Report and Order* as a general matter unduly prioritized unlicensed spectrum to the expense of licensed use. Lest we forget that the FCC, out of the 10.85 GHz allocated by the *Report and Order*, made available only 3.25 GHz of spectrum available for exclusive use.³⁰ The FCC has allocated significant amounts of spectrum for unlicensed uses (*e.g.*, white spaces, 3.5 GHz), and is considering other opportunities for unlicensed spectrum such as in the 5.9 GHz band.

²⁹ Microsoft Opposition at 2 (filed Jan. 31, 2017) (“Microsoft Opposition”).

³⁰ T-Mobile Petition at 4. The Commission should reject arguments attempting to diminish this inequity because the FNPRM “is *considering* allocating” additional spectrum. Microsoft Opposition at 7 (emphasis added). “The *Further Notice* represents at least an additional 7.6 GHz for exclusive licensed use.” *Id.* at 8.

The Commission now has an opportunity to correct this imbalance. As Nokia explains in support of CCA’s proposal, “the Commission’s decision to allow for zero MHz of exclusive licensed spectrum over that entire 14 GHz span is a missed opportunity to facilitate a diversity of services and business models, that could lead to greater investment in 5G networks.”³¹ Indeed, permitting both licensed and unlicensed operations in this band will better equip the marketplace to address the insatiable consumer demand for mobile wireless data services as well as unlicensed services, thereby serving the public interest. As Chairman Pai recognized, “we are at the dawn of the Internet of Things, with 15 billion Internet connected devices and 50 billion expected by 2020.”³² CCA agrees that it is time to “rethink our wireless networks and to start planning for our 5G future.”³³ Accordingly, the Commission should heed the calls of various petitioners and allow licensed use for some portion of the 64-71 GHz band.

CONCLUSION

CCA respectfully requests that the FCC reconsider certain rules adopted in the *Report and Order* as described herein, which will encourage competition, promote efficient 5G network deployment and ultimately serve the public interest.

Respectfully submitted,

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February 24, 2017

³¹ Nokia Comments at 10.

³² Chairman (then Commissioner) Pai Statement at 1.

³³ *Id.*

CERTIFICATE OF SERVICE

I, Elizabeth Barket, hereby certify that on this 24th day of February 2017, I caused a true and correct copy of the foregoing “Reply to Oppositions to Petitions for Reconsideration” to be served on the following via first-class postage prepaid mail:

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