

June 3, 2016

VIA ELECTRONIC DELIVERY

Marlene H. Dortch, Secretary
Federal Communications Commission
445 12th Street S.W.
Washington, DC 20554

**Re: Notice of Ex Parte Presentation
GN Docket No. 14-177; IB Docket No. 15-256; RM-11664; WT Docket No. 10-112;
IB Docket No. 97-95**

Dear Ms. Dortch:

On June 1, 2016, representatives of Nextlink Wireless, LLC (“Nextlink”), an operating affiliate of XO Communications, LLC (“XO”), met with representatives from the International Bureau (“IB”), Office of Engineering and Technology (“OET”) and Wireless Telecommunications Bureau (“WTB”) of the Federal Communications Commission (“FCC” or “Commission”) to discuss the Commission’s *Notice of Proposed Rulemaking* in the above-referenced proceedings.¹ Attending the meeting on behalf of Nextlink/XO were: Lisa Youngers, Vice President and Assistant General Counsel – Federal Affairs; Patrick Thompson, Director, Legislative Affairs; Michele Farquhar and C. Sean Spivey of Hogan Lovells US LLP, counsel to Nextlink/XO; Tom Peters of Hogan Lovells US LLP, advisor to Nextlink/XO; and Mike Lasky of Widelity, Inc., consultant to Nextlink/XO. Attending the meeting on behalf of the Commission were the following IB, OET and WTB staff: Jose Albuquerque, Simon Banyai, Stephen Buenzow (by phone), Martin Doczkat, Chip Fleming (by phone), Chris Helzer, Kal Krautkramer (by phone), Robert Nelson, Brian Regan, John Schauble, Catherine Schroeder (by phone) and Nancy Zaczek (by phone).

At the meeting, Nextlink discussed the benefits of maintaining the 28 GHz band’s current geographic licensing scheme in contrast to the financial and technical burdens of issuing new Upper Microwave Flexible Use (“UMFU”) licenses on a county-by-county basis. A large majority of commenters opposed the Commission’s novel, never-before-tested county-based proposed licensing scheme for 28 GHz licenses.² Nextlink explained that it does not support county-based

¹ *Use of Spectrum Bands Above 24 GHz for Mobile Radio Services, et al.*, Notice of Proposed Rulemaking, 30 FCC Rcd 11878 (2015) (“*NPRM*”).

² See, e.g., Reply Comments of Intel Corp., GN Docket No. 14-177, *et al.* at 2 (filed Feb. 26, 2016) (“While many of the Commission’s primary proposals were supported by a majority of commenters, a small minority of those proposals received substantial opposition. These include . . . the proposal for county-based license areas”); Reply Comments of Nokia, GN Docket No. 14-177, *et al.* at 3 (filed Feb. 26, 2016) (“Commenters widely agree that the geographic licensing area should be larger than county-level.”); Reply Comments of Samsung Electronics America, Inc. and Samsung

licensing because adopting extremely small geographic license areas would present multiple financial and technical challenges.³ As an initial matter, Nextlink currently holds 93 Local Multipoint Distribution Service (“LMDS”) licenses, but under the new proposal would hold 767 county-based licenses for the A1 band alone.⁴ Nextlink explained how the population densities of counties within the same Basic Trading Area (“BTA”) can vary widely and how this, along with jurisdictional and geographic issues in some BTAs, will complicate a county-based licensing scheme. As the attached presentation slides show, many counties have very low population density. For example, Inyo County, California has a population density of 1.8 people per square mile and is contained within the same BTA as Los Angeles County, one of the most densely populated counties in the country.⁵ A similar problem occurs in the Denver, Colorado BTA, where several counties have a population density of two people per square mile or less.⁶ In addition, many BTAs are spread out over a large area and across multiple jurisdictions, raising costs and complicating site builds. For example, the New York BTA is comprised of numerous counties spread across New York, New Jersey, Connecticut and Pennsylvania, and many of these counties are among the most expensive in which to deploy a site.⁷ Another factor is that many BTAs include counties that are hours away from the city center of the BTA, adding cost and complexity to maintenance.⁸ And several counties include significant national forest territory, if not entirely designated as national forests. For example, of the 35 counties within the Lexington, Kentucky BTA, about one quarter include significant areas of the Daniel Boone National Forest and at least one county is entirely within that forest.⁹ Each of these BTAs, spread across different regions of the country, would present its own unique problems if the FCC adopted county-based licenses for the 28 GHz band.

Research America, GN Docket No. 14-177, *et al.* at 10 (filed Feb. 26, 2016) (“The majority of commenters opposed the Commission’s proposed county-based licensing scheme for the 28 GHz, 37 GHz, and 39 GHz bands.”); Reply Comments of Straight Path Communications Inc., GN Docket No. 14-177, *et al.* at 6 (filed Feb. 26, 2016) (“Commenters in this proceeding almost unanimously oppose the Commission’s proposed county-based licensing scheme for 28 GHz and 39 GHz bands.”); Reply Comments of T-Mobile USA, Inc., GN Docket No. 14-177, *et al.* at 15 (filed Feb. 26, 2016) (“T-Mobile agrees with Verizon that county-level licenses could prove administratively complex and burdensome.”).

³ See Reply Comments of XO Communications, LLC [Nextlink], GN Docket No. 14-177, *et al.* at 8-9 (filed Feb. 26, 2016); see also Reply Comments of The Wireless Internet Service Providers Association, GN Docket No. 14-177, *et al.* at 3-4 (filed Feb. 26, 2016) (“[I]f an LMDS license were subdivided into eight separate county-wide licenses, the licensee would need to meet regulatory obligations, file renewal applications and pay regulatory fees for each of the eight licenses.”).

⁴ Of course, if the Commission reconfigures the geographic license areas for the A2 and A3 bands and the B block, the number of Nextlink’s county-based licenses would increase substantially.

⁵ See attach. at 2.

⁶ See *id.* at 3.

⁷ *Id.* at 4.

⁸ For example, Clayton, Georgia, the county seat of Rabun County (in the northeast corner of the Atlanta BTA) is approximately 110 miles from downtown Atlanta and a two-hour trip by car. See *id.* at 5. Burns, Oregon, the county seat of Harney County (in the southeast corner of the Portland BTA) is approximately 280 miles from Portland and a five-hour trip by car. See *id.* at 8.

⁹ *Id.* at 7.

Nextlink chronicled the specific financial challenges that county-based licensing would create for an operator in its position to meet substantial service requirements on a county-by-county basis. These costs include both capital expenditures and ongoing operating expenditures for each new site Nextlink would deploy within a county. Nextlink's upfront costs for each new site include the purchase of radios, fiber connectivity, telemetry routers, as well as construction, permitting and real estate fees¹⁰—potentially totaling in the tens of millions of dollars. Beyond these initial deployment costs, Nextlink would also need to pay substantial recurring operational expenses for backhaul, site maintenance and warehousing costs for spare equipment, site audit costs and location rents.¹¹ In addition, Nextlink would incur sizable administrative costs such as annual licensing and other regulatory fees payable on a license-by-license basis and legal fees for re-filing modified leases on a county basis.

In addition to the financial hurdles, Nextlink highlighted that issuing UMFU licenses based on counties could present several technical difficulties. Nextlink sites a significant amount of its radio equipment on taller buildings that are wired with fiber provided on reasonable terms and conditions—facilities that are not available in many of the more sparsely populated counties within Nextlink's existing license areas. Nextlink is also likely to face challenges deploying qualified construction and maintenance crews to counties that are hours away from the major metropolitan hub, such as in the Atlanta and Portland BTAs.

Moving to county-based licensing is also inconsistent with past Commission precedent. Nextlink noted that in past spectrum proceedings the FCC has provided incumbent licensees with greater operational flexibility (including mobility) without imposing more stringent build-out requirements, such as smaller geographic licensing areas.¹² In other cases where the FCC has reallocated spectrum for mobile or flexible use, the Commission relaxed the construction requirement or granted licensees more time to meet existing build-out requirements.¹³ Indeed, imposing new, more stringent license obligations years after the licensed spectrum has been auctioned would be unfair to auction winners and interfere with their reasonable investment-backed expectations, raising serious concerns that such actions would be considered a regulatory taking.¹⁴

¹⁰ *Id.* at 10.

¹¹ *Id.* at 11.

¹² See, e.g., *Amendments to Parts 1, 2, 27 and 90 of the Commission's Rules to License Services in the 216-220 MHz, 1390-1395 MHz, 1427-1429 MHz, 1429-1432 MHz, 1432-1435 MHz, 1670-1675 MHz, and 2385-2390 MHz Government Transfer Bands*, Report and Order, 17 FCC Rcd 9980, 10010 ¶¶ 72-73 (2002).

¹³ See, e.g., *Amendment of Part 27 of the Commission's Rules to Govern the Operation of Wireless Communications Services in the 2.3 GHz Band*, Report and Order and Second Report and Order, 25 FCC Rcd 11710 (2010), *recon.*, *Order on Reconsideration*, 27 FCC Rcd 13651 (2012); *Service Rules for Advanced Wireless Services in the 2000-2020 MHz and 2180-2200 MHz Bands*, Report and Order and Order of Proposed Modification, 27 FCC Rcd 16102 (2012).

¹⁴ See, e.g., *Penn. Central Transp. Co. v. New York City*, 438 US 104, 124-25 (1978) (Courts will assess whether an agency action results in a regulatory taking by considering the following factors: (1) the economic impact of the regulation, (2) the extent to which the regulation interferes with distinct investment-backed expectations, and (3) the character of the government action.).

Finally, a county-based licensing regime would not only increase license holders' operational burdens, but also the FCC's administrative costs.¹⁵ The Commission would take on the responsibility of overseeing almost 9,000 separate authorizations if it licenses the 28 GHz band based on counties and the 39 GHz band based on Partial Economic Areas ("PEAs").¹⁶ Nextlink therefore urged the Commission to maintain existing BTAs for 28 GHz licenses and Basic Economic Areas for 39 GHz licenses, or to consider an alternative licensing scheme that involves geographic areas larger than individual counties. In the event the FCC does reconfigure the geographic license areas for existing LMDS licensees, however, Nextlink posited that PEAs are a preferable alternative to county-based licenses. The Commission plans to license 600 MHz spectrum—which is also expected to be used for some 5G services—based on PEAs, and there are a similar number of PEAs as BTAs. Nextlink noted that, in instances where an existing license holder's spectrum assets do not encompass an entire PEA, the FCC could geographically partition the PEA along current BTA boundaries such that portions of the PEA are assigned to the existing licensees, or remain in FCC inventory for a future auction (if the area is not licensed to another entity). When licenses in adjacent or nearby BTAs are held by the same licensee (or held in FCC inventory), multiple portions of the same PEA may be grouped into a larger portion, and in some cases, into a complete PEA. Furthermore, and particularly if the FCC adopts PEAs for 39 GHz licenses, then implementing PEAs for 28 GHz UMFU licenses would create greater uniformity among the 5G licenses.

Nextlink suggested that, to the extent the FCC's county-based licensing proposal is aimed at promoting greater access to the 28 GHz band for fixed satellite service ("FSS") operations, better alternatives are available to achieve this goal. Nextlink reiterated that tools such as partitioning and disaggregating licenses and coordination provide a readily available and effective solution for protecting FSS operations, and that Nextlink has coordinated with many satellite operators through these means. In that same vein, Nextlink urged the FCC to reject recent proposals to afford FSS operations co-primary status in the vast majority of the geographic territory of the United States.¹⁷

¹⁵ See, e.g., *Amendment of Parts 1 and 22 of the Commission's Rules with Regard to the Cellular Service, Including Changes in Licensing of Unserved Area et al.*, Report and Order and Further Notice of Proposed Rulemaking, 29 FCC Rcd 14100 ¶¶ 2, 12 (2014) (eliminating hybrid site-based licensing approach for cellular service in favor of larger geographic licenses to reduce the administrative burden on the FCC and licensees); *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 et al.*, Report and Order and Further Notice of Proposed Rulemaking, 19 FCC Rcd 14165 ¶¶ 54-55 (2004) (adopting BTA geographic service areas for new wireless licenses because smaller, site-based licensing is inefficient and administratively burdensome, and transaction costs for aggregating smaller licenses are high, impeding the development of next-generation technologies).

¹⁶ See *NPRM*, 30 FCC Rcd at 11914 ¶¶ 116-17. Using the existing band plans for 28 GHz and 39 GHz spectrum, the county-based license areas would result in 3,141 28 GHz band licenses and the PEA-based license areas would result in 5,824 39 GHz licenses.

¹⁷ See *Ex Parte* Letter from Stacey G. Black, Assistant Vice President – Federal Regulatory, AT&T Services, Inc. and Jennifer A. Manner, Vice President, Regulatory Affairs, EchoStar Corp. to Marlene H. Dortch, Secretary, FCC, GN Docket No. 14-177, *et al.* (filed Apr. 6, 2016). Under the AT&T-EchoStar proposal, UMFU licensees would receive guaranteed interference protection in very limited pockets of the country, while FSS stations would become elevated to co-primary status in the remainder of the country—the vast majority of the U.S. geography. In addition, individually licensed FSS earth stations already in existence or applied for by the time of the UMFU auction within the

The Commission's rules long ago established that FSS is secondary to LMDS operations in the 28 GHz band.¹⁸

No matter what geographic licensing scheme the Commission ultimately adopts, Nextlink urged the Commission to grant incumbents relief to mitigate the substantial harms stemming from any alteration of the current BTA license areas. Specifically, any performance requirements must take into account the additional burdens Nextlink will face in providing substantial service in many more markets and in much less densely populated areas of the country. At a minimum, the Commission should not enforce LMDS licensees' upcoming substantial service requirements. It would be premature for the Commission to maintain near-term, existing performance milestones because the market will need time to develop new equipment for mobile use of the band.

The FCC should also consider extending existing licensees' renewal dates and requiring licensees to demonstrate substantial service as of the date of the extended license renewal term to take into account new 5G mobile devices and equipment. Nextlink estimated that, based on equipment development cycles, it will take at least two years for equipment manufacturers to develop and deliver devices to market once industry standards are codified. Moreover, Nextlink noted that existing LMDS license holders sometimes coordinate with equipment manufacturers to create scope and scale to access devices. New UMFU licensees would benefit from and enhance this process, and harmonizing existing and future licensees' renewal dates and substantial service milestones would allow time for 5G standards and equipment to develop and for incumbents to prepare for the added costs and technical issues that smaller geographic area licensing will create. The FCC could also grandfather incumbent licensees' substantial service requirements based on their first round showings and not apply any new substantial service rules until a subsequent round of renewals occurs.

Finally, Nextlink expressed its continued support for including the A2 and A3 bands and the B block of the 28 GHz band in a flexible use plan for 5G.¹⁹ The record shows that 5G can be deployed over bandwidths smaller than the artificial 500 megahertz threshold the FCC has proposed for identifying new millimeter-wave bands for flexible use.²⁰ Nextlink noted that in many markets it is the licensee for both the A3 and B block spectrum and Nextlink could therefore aggregate 300 megahertz of spectrum at 31.0-31.3 GHz.

Segregating out the A1 band would also make it harder for Nextlink to obtain equipment that can operate using this spectrum if the Commission does not include the A2 and A3 bands and the B

"urban cores" would be co-primary with UMFU licensees, and UMFU licensees would be required to accept interference from these stations. See also *Ex Parte* Letter from John P. Janka and Elizabeth R. Park, Counsel to ViaSat, Inc. to Marlene H. Dortch, Secretary, FCC, GN Docket No. 14-177, *et al.* (filed Apr. 21, 2016).

¹⁸ As the Commission noted in the *NPRM*, "[t]he investments satellite operators have made in the Ka-band operations were made with knowledge of their secondary status . . . it is unreasonable for us to preclude mobile use of this band solely because of pre-existing secondary use." See *NPRM*, 30 FCC Rcd at 11892 ¶ 31.

¹⁹ See Comments of XO Communications, LLC [Nextlink], GN Docket No. 14-177, *et al.* at 11-16 (filed Jan. 28, 2016); Reply Comments of XO Communications, LLC [Nextlink], GN Docket No. 14-177, *et al.* at 4-6 (filed Feb. 26, 2016).

²⁰ See, e.g., Comments of Ericsson Inc., GN Docket No. 14-177, RM-11664 at 37 (filed Jan. 15, 2015).

block as part of the new 28 GHz 5G flexible use band plan. The Commission previously acknowledged LMDS licensees' difficulties in getting access to equipment when it granted multiple LMDS licensees' applications for waivers and extensions of time to demonstrate substantial service in 2008.²¹ Not reallocating the A2 and A3 bands and the B block for flexible use in a 5G band plan would trigger the same—if not worse—equipment challenges LMDS licensees faced in the past and impose extreme burdens on licensees without any corresponding benefits. It would be inefficient for manufacturers to build, and service providers to purchase and deploy, equipment that does not currently include these spectrum bands, only to turn around and remanufacture, repurchase and redeploy new equipment a year or two later after this spectrum is presumably allocated for flexible use. Nextlink asked the FCC to, at a minimum, issue a Further Notice of Proposed Rulemaking that proposes allocating the A2 and A3 bands and the B block for flexible use.

Pursuant to Section 1.1206(b) of the Commission's rules, I am filing this letter electronically in the above-referenced docket. Please contact me directly with any questions.

Respectfully submitted,

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²¹ See *Applications filed by Licensees in the Local Multipoint Distribution Service (LMDS) Seeking Waivers of Section 101.101 of the Commission's Rules and Extensions of Time to Construct and Demonstrate Substantial Service*, Memorandum Opinion and Order, 23 FCC Rcd 5894, 5905 ¶ 24 (WTB Apr. 11, 2008) ("We find that the LMDS licensees before us have demonstrated that they faced factors beyond their control, including difficulties in obtaining viable, affordable equipment, that warrant granting a limited extension of time to permit these licensees to continue to build out their licenses.").