

REQUEST FOR WAIVER

Pursuant to Section 1.925 of the Commission's rules,^{1/} T-Mobile License, LLC ("T-Mobile") requests a waiver of Section 30.104 of the rules^{2/} so that it may retain portions of 18 Upper Microwave Flexible Use Service ("UMFUS") licenses in the 28 GHz band based on satisfaction of the Commission's performance standards in those areas (the "Retained Areas").^{3/} Granting the requested relief would serve the public interest by allowing consumers and businesses in the Retained Areas to continue to receive the connectivity capacity that T-Mobile provides, while also making the spectrum in the Relinquished Areas available to other providers.

BACKGROUND

T-Mobile currently holds 550 licenses covering UMFUS use in the 28 GHz band with a performance demonstration deadline of June 1, 2024. Sections 30.104(a)-(b) of the Commission's rules requires that UMFUS licensees satisfy one of several performance requirements as part of their license renewal applications. For mobile and point-to-multipoint services, licensees must demonstrate that they are providing reliable signal coverage to at least 40% of the population within their service area, or to at least 25% of the geographic area of the license.^{4/} For point-to-point services, licensees must demonstrate that they have a designated number of links that are operating and providing service, or that they have deployed at least one transmitter or receiver in at least 25% of the census tracts within the license area.^{5/} Incumbent licensees like T-Mobile must submit a performance demonstration by June 1, 2024, rather than at the renewal deadline.^{6/}

T-Mobile has satisfied, by itself, performance obligation for 12 of its 28 GHz UMFUS licenses.^{7/} T-Mobile has also deployed service in 18 of its other 28 GHz UMFUS license areas but does not expect to meet the performance metrics outlined in Section 30.104 for those 18 licenses by the June 1, 2024 deadline.^{8/} Nevertheless, it is in the public interest for T-Mobile to retain its

^{1/} See 47 C.F.R. § 1.925.

^{2/} See 47 C.F.R. § 30.104.

^{3/} Included as an Exhibit to this Request for Waiver is a list of proposed license partitions that would constitute the Retained Areas. In a simultaneously submitted application, T-Mobile has proposed to partition (retaining the current call signs) the Retained Areas and to relinquish those portions of the licensed area that are not contained within the Retained Areas (the "Relinquished Areas")

^{4/} See 47 C.F.R. § 30.104(a)-(b).

^{5/} See 47 C.F.R. § 30.104(a)-(b).

^{6/} See 47 C.F.R. § 30.104(f).

^{7/} T-Mobile is separately filing the appropriate notifications of construction for those licenses that it has constructed. T-Mobile has satisfied performance obligations for other 28 GHz licenses based on operations conducted by lessees. It is separately submitting notifications of construction for those licenses as well.

^{8/} As indicated in the Exhibit to this Request for Waiver, T-Mobile is using its 18 UMFUS licenses in nine counties.

authorizations for the areas where it is providing service so that customers can continue to receive the robust level of communications that T-Mobile provides using the 28 GHz band. Accordingly, T-Mobile requests that the Commission waive the provisions of Sections 30.104(a)-(b) and Section 30.104(e) so that T-Mobile may retain the 18 licenses based on the provision of service within the Retained Areas and keep the authorizations for the Retained Areas to continue to provide service.^{9/}

REQUEST FOR WAIVER

Pursuant to Section 1.925(b)(3) of its rules, the Commission may grant a waiver of the rules where (i) the underlying purpose of the rule would be frustrated by its application, and (ii) grant of the waiver is in the public interest.^{10/} Similarly, Section 1.3 states that the Commission's rules may be waived "for good cause shown."^{11/} In determining whether waiver is appropriate, courts have held that the Commission should "take into account considerations of hardship, equity, or more effective implementation of overall policy."^{12/} The circumstances in this case warrant granting a waiver.

The Commission's Rules Would Not be Undermined By Grant of This Request

The Commission has explained that the purpose of the performance requirements in Section 30.104 is to ensure that licensees use their authorized spectrum.^{13/} That is precisely what T-Mobile is doing. T-Mobile has expended time and resources to deploy facilities in the 28 GHz band so that it can provide services to the public in areas where T-Mobile has determined that use of the 28 GHz band would be meaningful to consumers and businesses. Although T-Mobile has not put the spectrum to use in the Relinquished Areas or in the areas covered by its other authorizations, that is because, given the current state of technology it has determined that is not feasible to effectively deploy the spectrum in these areas in a way that would benefit the public. As explained above, T-Mobile has proposed to surrender the use of spectrum in the Relinquished Areas. But canceling T-Mobile's entire license because it has not met the specified performance requirements throughout its originally licensed area – when service is being provided to the Retained Areas – would not facilitate the Commission's goal of ensuring that the spectrum is being put to use. To the contrary, it would frustrate that goal because T-Mobile would be

^{9/} As noted above, T-Mobile would relinquish the areas covered by its 18 licenses where it is not providing service as well as all other 28 GHz band UMFUS licenses that it is not using.

^{10/} See 47 C.F.R. § 1.925(b)(3).

^{11/} See 47 C.F.R. § 1.3; see also *WAIT Radio v. FCC*, 418 F.2d 1153 (D.C. Cir. 1969); *N.E. Cellular Tel. Co., L.P. v. FCC*, 897 F.2d 1164, 1166 (D.C. Cir. 1990).

^{12/} *WAIT Radio*, 418 F.2d at 1159.

^{13/} See *Use of Spectrum Bands Above 24 GHz For Mobile Radio Services et al.*, Second Report and Order, Second Further Notice of Proposed Rulemaking, Order on Reconsideration, and Memorandum Opinion and Order, 32 FCC Rcd 10988, ¶ 60 (2017) ("*2017 Spectrum Frontiers Order*") ("It is our goal to create a regulatory scheme that promotes the rapid and widespread deployment of wireless broadband, to consumers' benefit. One way to both fulfill our statutory obligation and promote widespread deployment is to impose enforceable buildout or coverage requirements.").

required to cease its operations in the Retained Areas. And the spectrum would remain fallow unless and until another licensee acquired the licenses, potentially causing a significant disruption to consumers.

Grant of a Waiver Would Serve the Public Interest

Allowing T-Mobile to keep its authorizations in the Retained Areas, where it is providing service would also serve the public interest. *First*, grant of a waiver would recognize the evolving nature of services provided using millimeter wave spectrum, which remains nascent. Indeed, while some providers have begun to deploy millimeter wave spectrum for fixed use, its deployment for mobile services – for which the Commission amended its rules in 2016 and anticipated would drive the future use of the spectrum – is not yet widespread.^{14/} That is because the use cases for the spectrum are not what the Commission – or industry – envisioned when mobile allocations were added to the UMFUS bands. When the Commission authorized mobile services in the 28 GHz band, it relied heavily on the promise of new technologies that could facilitate mobile operations.^{15/} The Commission noted that while millimeter wave frequencies had previously been considered unsuitable for mobile use, “technological advances hold promise for potentially unlocking [millimeter wave] bands for mobile and other operations in a way that meets the need for flexible access to spectrum to improve bandwidth in constrained geographies.”^{16/} But the Commission also recognized that there was some uncertainty about how the spectrum could be used.^{17/}

That uncertainty persists. Since the 28 GHz band was made available for mobile services, providers have determined that, at least for now, the spectrum can best be used for fixed operations to provide short-range supplemental capacity. That is exactly how T-Mobile is employing the spectrum in the Retained Areas. In particular, T-Mobile is using its 28 GHz band spectrum in venues like arenas and stadiums during widely attended events to ease network congestion.^{18/} However, even in those scenarios, T-Mobile is unable to satisfy the performance requirements in Section 30.104 because the propagation characteristics of the spectrum only allow for stable communications over limited distances where there is a clear line of sight

^{14/} See *Use of Spectrum Bands Above 24 GHz For Mobile Radio Services et al.*, Report and Order and Further Notice of Proposed Rulemaking, 31 FCC Rcd 8014 (2016) (“*2016 Spectrum Frontiers Order*”).

^{15/} See *2016 Spectrum Frontiers Order* ¶¶ 23, 26-27.

^{16/} *2016 Spectrum Frontiers Order* ¶ 6.

^{17/} See *2016 Spectrum Frontiers Order* ¶¶ 6-7.

^{18/} See *T-Mobile’s Network is Big Game Ready*, Press Release, T-MOBILE (Jan. 30, 2024), <https://www.t-mobile.com/news/network/t-mobile-allegiant-stadium-las-vegas-game-upgrades> (describing upgrades inside Allegiant Stadium, including mmWave enhancements to improve 5G speeds); see also *5G Spectrum – 26 GHz and 28 GHz*, GSMA (Feb. 2018), <https://www.gsma.com/spectrum/wp-content/uploads/2018/02/26-and-28GHz-InfoG.pdf> (listing stadiums among best potential use cases for this spectrum).

between the transmit and receive locations.^{19/} Grant of a waiver is necessary to account for these challenges and accommodate how licensees are deploying their UMFUS licenses today.^{20/}

Second, allowing T-Mobile to retain a license for the Retained Areas based on its demonstration of performance would limit the area where the spectrum may remain fallow. T-Mobile recognizes that the spectrum in the Relinquished Areas will remain fallow until a new licensee acquires the authorization to serve those areas. However, there will be no disruption in service to those areas because service was never being provided to the Relinquished Areas in the first place. In contrast, cancelling the *entire* license in which the Relinquished Area is contained would mean that the spectrum in the *entire* licensed area would remain fallow until a new license was issued *and* service to existing customers would be disrupted.

Moreover, making T-Mobile's spectrum available in the Relinquished Areas while permitting it to keep its authorization for the Retained Area is consistent with other Commission programs intended to ensure that spectrum is put to its highest and best use. For instance, the Commission previously adopted a "keep what you use" approach in the 700 MHz band.^{21/} In that proceeding, the Commission rejected a bright-line test to determine whether a licensee complied with its build-out requirements and determined that a "keep what you use" approach would better provide opportunities for others to acquire and deploy spectrum that is not adequately built out, especially in rural areas.^{22/} That is true here as well – making the Relinquished Areas available to others while allowing T-Mobile to keep the Retained Areas would support more widespread deployment.

^{19/} See *Understanding MMWave Spectrum for 5G Networks*, 5G AMERICAS, at 24 (Dec. 2020), <https://www.5gamericas.org/wp-content/uploads/2020/12/InDesign-Understanding-mmWave-for-5G-Networks.pdf> ("The high free space pathloss or signal attenuation at mmWave frequencies necessitates proximity and line-of-sight (LOS) paths for establishing wireless links between the transmitter and the receiver.").

^{20/} Despite the challenges in the deployment of the 28 GHz band, T-Mobile does not seek a waiver or other relief that would allow it additional time to meet the performance requirements. T-Mobile consistently puts its authorized spectrum to use and respects the obligations imposed by the Commission's performance requirements. The relief here is tailored so that T-Mobile can continue to provide service where it has deployed and surrender its authorization where has not. Indeed, as noted above, T-Mobile is surrendering 520 authorizations where it has not initiated service, in addition to seeking relief for the 18 licenses covered by this request.

^{21/} See *Service Rules for the 698-746, 747-762, and 777- 792 MHz Bands, et al.*, Memorandum Opinion and Order on Reconsideration, 28 FCC Rcd 2671, ¶ 15 (2013) ("700 MHz Order"); see also *Wireless Telecommunications Bureau Announces Process for Relicensing 700 MHz Spectrum in Unserved Areas*, Public Notice, 34 FCC Rcd 350 (2019).

^{22/} See *700 MHz Order* ¶ 15 (recognizing that "demonstrations of coverage may vary across licensees" who "will likely use a variety of technologies to provide a range of services with this spectrum"); *Service Rules for the 698-746, 747-762, and 777- 792 MHz Bands, et al.*, Second Report and Order, 22 FCC Rcd 15289, ¶ 156 (2007).

While the Commission considered a similar “use-it-or-share-it” approach in the 28 GHz rulemaking and rejected it,^{23/} T-Mobile’s instant proposal better serves the public interest. That is because allowing T-Mobile to retain the spectrum where it is being used and to relinquish it where T-Mobile is not – *without* sharing it – will provide both T-Mobile *and* others seeking to use the returned spectrum the certainty they need to provide service. As the wireless industry has repeatedly pointed out, spectrum that has been licensed for exclusive-use is better for providers because it affords the certainty necessary for them to provide the high-quality, interference-free services that consumers have come to expect and require.^{24/}

Finally, granting a waiver would account for the disparate treatment of incumbent 28 GHz licensees, which are uniquely subject to the early performance requirements, and provide appropriate relief. As noted above, non-incumbent licensees have until 2028 – *four additional years* – to meet the same requirements that incumbent licensees must meet this year.^{25/} By that time, technology may have advanced such that the Commission’s existing performance metrics for the 28 GHz band become appropriate. However, that is certainly not the case now, and incumbent licensees should not be held to an unreachable standard.

T-Mobile recognizes that the Commission considered the question of applying different performance requirement deadlines for incumbent licensees.^{26/} T-Mobile emphasizes that it is *not* seeking an extension of the performance deadline for incumbent licensees or a modification of the rules adopted in 2016. However, by waiving the rules as T-Mobile asks, the Commission would appropriately recognize that, at least with respect to the facts presented by T-Mobile uncertainty remains about how technological developments for this spectrum will proceed.^{27/} To accommodate these changed circumstances, the Commission should, rather than extend the performance deadline, permit that-Mobile, which has found uses for existing technologies, to retain its authorizations where it is providing service .

T-Mobile’s Proposal is Consistent With Commission Precedent Allowing Licensees to Retain Their Authorizations

Not only is waiver warranted under these circumstances, but T-Mobile’s proposal to allow it to keep the Retained Areas would also be consistent with Commission precedent in cases where it cancelled authorizations for lack of performance. Indeed, in most cases where the Commission has canceled authorizations, as Section 30.104(e) envisions, it has done so because the relevant

^{23/} See 2016 Spectrum Frontiers Order ¶¶ 471-74; 2017 Spectrum Frontiers Order ¶ 225 (declining to adopt a use-it-or-share-it regime).

^{24/} See Spectrum Policy, CTIA, <https://www.ctia.org/spectrum> (last visited Apr. 19, 2024).

^{25/} See 2016 Spectrum Frontiers Order ¶ 205; see also 47 C.F.R. § 30.104(a), (e) (establishing a license term of no more than 10 years from initial issuance or renewal).

^{26/} See 2016 Spectrum Frontiers Order ¶¶ 217-20; 2017 Spectrum Frontiers Order ¶¶ 176-78.

^{27/} See 2016 Spectrum Frontiers Order ¶ 219 (noting that some incumbent licensees may struggle to meet performance requirements by their initial license renewal due to the “nascent state of technology”).

licensee has taken *no* steps toward meeting the applicable performance requirements.^{28/} That is not the case here.

In configuring the Retained Areas, T-Mobile sought to create a single geography that was compact, contiguous, Census tract based, and for which it could demonstrate the provision of service to at least 40% of the population. To do this T-Mobile overlaid the 28 GHz equipment deployed in the market and generated propagation maps per the accompanying technical narrative for each license. Then a modest geography buffer was constructed to reduce the possibility of co-channel interference from future operations in the Relinquished areas. The end result are small license partitions that satisfy the Part 30 40% population coverage threshold requirement.

In addition, T-Mobile's proposal is consistent with the Commission's own recognition that the performance metrics it adopted for the UMFUS bands may not be appropriate for the type of spectrum use that would justify a licensee's retention of its authorization. For instance, the Commission initially proposed and adopted population-based performance metrics for millimeter wave spectrum.^{29/} However, in recognition of the fact that the spectrum may be used by Internet-of-Things devices that cannot satisfy population-based metrics, the Commission subsequently adopted an alternative geographic area-based metric.^{30/} At that time, the Commission correctly found that it was premature to predict the type of innovative services that might use the spectrum.^{31/} The Commission further noted that it might even be appropriate to adopt a usage-based metric in the future.^{32/} Specifically, the Commission explained that "it is important to provide some additional option for UMFUS licensees whose deployments may not track residential population."^{33/} Granting the requested relief would be consistent with the Commission's acknowledgement that additional flexibility may be necessary.

If there are any questions related to this request, please contact T-Mobile's Christopher Wieczorek by email at Chris.Wieczorek@T-Mobile.com or by phone at (202) 654-5913.

^{28/} See, e.g., *Commnet Supply, LLC, Crossroads License Holding Sub A et al.*, Order, 27 FCC Rcd 5832, ¶ 18 (2012) (denying a request for waiver of the licensee's build-out requirements for its PCS license because the licensee failed to make any use of the spectrum from the time it received the license), *aff'd by Commnet Supply, LLC, Crossroads License Holding Sub A et al.*, Memorandum Opinion and Order, 34 FCC Rcd 11673, ¶ 15 (2019).

^{29/} See *2016 Spectrum Frontiers Order* ¶¶ 203-10.

^{30/} See *Use of Spectrum Bands Above 24 GHz For Mobile Radio Services; 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*, Third Report and Order, Memorandum Opinion and Order, and Third Further Notice of Proposed Rulemaking, 33 FCC Rcd 5576, ¶ 8 (2018) ("*2018 Spectrum Frontiers Order*").

^{31/} See *2017 Spectrum Frontiers Order* ¶¶ 64-69.

^{32/} See *2018 Spectrum Frontiers Order* ¶ 9.

^{33/} *2018 Spectrum Frontiers Order* ¶ 9.

COUNTIES CONTAINING THE RETAINED AREAS

1. Los Angeles County, CA
2. San Francisco County, CA
3. Santa Clara County, CA
4. Miami-Dade County, FL
5. Fulton County, GA
6. Kings County, NY
7. Queens County, NY
8. Dallas County, NY
9. Tarrant County, TX