



# PUBLIC NOTICE

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## WIRELESS TELECOMMUNICATIONS BUREAU ACCEPTING APPLICATIONS TO MODIFY EXISTING LICENSES IN THE 39 GHz BAND PURSUANT TO VOLUNTARY REBANDING PROCESS

### *GN Docket No. 14-177*

By this Public Notice, and consistent with the voluntary rebanding framework adopted by the Commission in the *Spectrum Frontiers R&O*,<sup>1</sup> the Wireless Telecommunications Bureau (Bureau) announces that it is accepting applications to modify existing licenses in the 38.6-40 GHz frequency band (39 GHz band). The Bureau is accepting these modification applications to facilitate the efficient use by existing 39 GHz licensees of the millimeter wave spectrum for fifth-generation (5G) wireless, Internet of Things, and other advanced spectrum-based services, in advance of an auction of new licenses for flexible use in the 39 GHz band. We note that nothing in this Public Notice prejudices the proposals pending before the Commission regarding the assignment of licenses for, or access to, the 39 GHz band.<sup>2</sup>

### **Background**

In the *Spectrum Frontiers R&O*, the Commission, among other things, adopted a new 39 GHz band plan and service rules that provide for 200 megahertz channels licensed by Partial Economic Areas (PEA).<sup>3</sup> The prior 39 GHz band plan and service rules provided for fourteen paired 50 by 50 megahertz channels licensed initially by self-defined Rectangular Service Areas (RSA) and then by Economic Area (EA) overlays.<sup>4</sup> In that regard, EA licenses—now converted into PEA licenses<sup>5</sup>—may be encumbered by

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<sup>1</sup> *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) (*Spectrum Frontiers R&O*).

<sup>2</sup> See, e.g., Letter from Alex Starr, AT&T, to Marlene Dortch, Secretary, FCC, GN Docket No. 14-177 *et al.*, at Attach. (filed Dec. 12, 2017); Letter from Charla M. Rath, Vice President, Verizon, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 14-177, at Attach. 2 (filed Apr. 24, 2018).

<sup>3</sup> *Spectrum Frontiers R&O*, 31 FCC Rcd at 8043-56, paras. 73-100.

<sup>4</sup> See *id.* at 8043-44, para. 74.

<sup>5</sup> For administrative efficiency, existing EA licenses and leases have been converted into unpaired 50 megahertz blocks licensed on a PEA basis. See *Wireless Telecommunications Bureau Announces Conversion of Incumbent 28 GHz and 39 GHz Licenses to the Upper Microwave Flexible Use Service*, Public Notice, GN Docket No. 14-177, DA 18-550 (WTB, rel. May 25, 2018).

one or more RSA licenses. Recognizing that incumbent 39 GHz licenses are interspersed among unassigned channels in noncontiguous paired blocks throughout the band, the Commission noted that “[h]olding any auction based on this fragmented band would likely be inefficient, as bidders would reasonably expect to incur significant transaction costs in assembling contiguous spectrum post-auction.”<sup>6</sup> To minimize these transaction costs, the Commission adopted a pre-auction process to allow incumbent licenses to be reconfigured to the new band plan through a voluntary rebanding framework.<sup>7</sup>

## **Discussion**

In adopting a voluntary rebanding framework, the Commission anticipated that the framework would help to facilitate greater contiguity of spectrum to be used by existing license holders and by future winning bidders for new licenses.<sup>8</sup> We emphasize that—for purposes of streamlined processing—licensees may only request modifications that reflect the amount of their existing holdings, i.e., they cannot apply for modifications to their licenses that cover more MHz-Pops within each PEA than what they currently hold in the 39 GHz band.<sup>9</sup> Consistent with the voluntary rebanding framework adopted by the Commission, as implemented herein by the Bureau, entities applying to modify their 39 GHz licenses through the voluntary rebanding framework should follow these criteria and processes. Applications to modify existing 39 GHz licenses pursuant to this voluntary rebanding process will be accepted until February 1, 2019.

*First*, in order to implement the Commission’s foregoing pre-auction license reconfiguration policy, the Bureau is prepared at this time to accept three types of applications to modify existing PEA or RSA licenses.<sup>10</sup> Accordingly, an incumbent licensee may, pursuant to the Commission’s policy as set forth in detail below, file an application: (1) to swap its existing holdings for certain unassigned blocks within the 39 GHz band without the agreement of any other incumbent licensee; (2), to swap its existing holdings for other existing holdings and unassigned blocks within the 39 GHz band with the agreement of other incumbent licensees; and/or (3) to cancel its RSA licenses that fall wholly within a PEA in block(s) held by the same incumbent in that PEA, resulting in an unencumbered PEA license block(s).<sup>11</sup>

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<sup>6</sup> *Spectrum Frontiers R&O*, 31 FCC Rcd at 8053-54, para. 97.

<sup>7</sup> *Id.* at 8053-56, paras. 97-100.

<sup>8</sup> *Id.*

<sup>9</sup> We note that incumbent licensees may apply for the transfer of licenses between licensees as well as other modifications through other Commission processes.

<sup>10</sup> Applicants must file separate applications if aggregating spectrum for PEA licenses and for RSA licenses. In other words, a licensee that holds both RSA licenses and PEA licenses cannot aggregate spectrum from both sets of licenses on to the same 100 megahertz or 200 megahertz license (because the geography covered by each license is different). In addition, licensees should identify in their applications any leases associated with the licenses to be swapped to determine which leases will remain with the license after the swap is completed and which leases will be terminated. Licensees also should identify the amount of spectrum that is associated with each lease, and the specific frequencies for any point-to-point links.

<sup>11</sup> *Spectrum Frontiers R&O*, 31 FCC Rcd at 8054-55, paras. 98-99. Independent of the voluntary rebanding process, we note that any RSA licensee may file an application to cancel its license(s), regardless of whether they fall wholly within a PEA block.

*Second*, in accordance with the Commission’s goal of increasing the contiguity of existing license holdings in the 39 GHz band, which benefits both existing licensees seeking to use the 39 GHz band for high-bandwidth applications as well as future licensees seeking to acquire unencumbered spectrum,<sup>12</sup> we expect to accept an application only if it increases the contiguity of holdings within the 39 GHz band. For these purposes, we interpret the Commission’s reconfiguration policy to view each 50 megahertz block as contiguous only with the adjacent 50 megahertz block within an even 100 megahertz block.<sup>13</sup> Each 100 megahertz block is contiguous only with the adjacent 100 megahertz block within an even 200 megahertz block, as defined by the 39 GHz band plan. And each 200 megahertz block is contiguous with any adjacent 200 megahertz block.<sup>14</sup> We note that blocks must be wholly contiguous at lower levels before they will be considered contiguous at higher levels.<sup>15</sup>

We note that, in setting forth a process to achieve these goals, the Commission did not require that modification applications propose only those swaps that would result in holdings of 200 megahertz blocks to match the new band plan.<sup>16</sup> Consistent with that approach, we will accept modifications that result in the incumbent holding licenses for even 100 megahertz channels.<sup>17</sup> This flexibility will permit consolidation even of the smallest existing licensed channel blocks (of 50 megahertz each), leading to more contiguous spectrum available for incumbents and new licensees. And we note that allowing licensees to consolidate holdings in this manner is consistent with channel plan adopted by the Commission (e.g., 38.6-38.8 GHz or 39.00-39.20 GHz but not 38.7-38.9 GHz or 39.05-39.25 GHz).<sup>18</sup>

*Third*, pursuant to the voluntary rebanding process set forth by the Commission, we will only accept applications for unassigned blocks adjacent to an incumbent licensee’s holding if the target spectrum block either could not be requested by another incumbent licensee or the licensee requesting

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<sup>12</sup> *Spectrum Frontiers R&O*, 31 FCC Rcd at 8055-56, para. 100.

<sup>13</sup> An “even 100 megahertz block” is one that sits at either edge of the 200 megahertz channels in the band plan adopted in the *Spectrum Frontiers R&O*. See *Spectrum Frontiers R&O*, 31 FCC Rcd at 8053, para. 95; 47 CFR § 30.4. For example, the first channel in the 39 GHz band plan is 38.6-38.8 GHz, and the even 100 megahertz blocks within that channel are 38.6-38.7 GHz and 38.7-38.8 GHz. In contrast, 38.65-38.75 GHz is not an even 100 megahertz block, and therefore, when evaluating the contiguity of blocks to fill a 100 megahertz channel, the 38.65-38.7 GHz and 38.7-38.75 GHz blocks are not considered contiguous.

<sup>14</sup> In other words, the 39.05-39.10 GHz block standing alone is contiguous with the 39.00-39.05 GHz block but not the 39.10-39.15 GHz block. The 39.00-39.10 GHz block as a whole is contiguous with the 39.10-39.20 GHz block but not the 38.90-39.00 GHz block. The 39.00-39.20 GHz block as a whole is contiguous with both the 38.80-39.00 GHz block and the 39.20-39.40 GHz block.

<sup>15</sup> In other words, the 39.05-39.10 GHz block is contiguous with the 39.10-39.20 GHz block if and only if the licensee of the 39.05-39.10 GHz block also holds a license or has applied for the 39.00-39.05 GHz block.

<sup>16</sup> *Spectrum Frontiers R&O*, 31 FCC Rcd at 8053-56, paras. 97-100.

<sup>17</sup> We note that in a separate context—adopting a band plan with 100 megahertz channels in the 24 GHz Band for the Upper Microwave Flexible Use Service (UMFUS)—the Commission recognized that 100 megahertz channels are consistent with developing industry standards. 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, 11000, paras. 34-35 (2017).

<sup>18</sup> See *Spectrum Frontiers R&O*, 31 FCC Rcd at 8052-53, paras. 94-96.

that block has secured the other licensee's agreement.<sup>19</sup> We will evaluate whether another incumbent licensee could request a particular block first at the lowest level of contiguity (i.e., within the 100 megahertz block) and then at each ascending level of contiguity.<sup>20</sup> Under this approach, we anticipate most licensees will be able to consolidate some of their spectrum holdings into 100 megahertz, 200 megahertz, or even 400 megahertz blocks<sup>21</sup> in some areas without incurring the transaction costs of a negotiated agreement. We also note that if there is an entirely vacant 200 megahertz channel, then it would only be available to a licensee with an adjacent 200 megahertz block (because only then would it be contiguous)—but that if it is immediately adjacent to two different licensees with 200 megahertz blocks already, then neither licensee can request the vacant channel without an agreement between the two.

*Fourth*, consistent with the framework adopted by the Commission, we implement the following processes to handle encumbrances.<sup>22</sup> A PEA licensee may treat a spectrum block already occupied by an RSA licensee as unassigned, so long as it understands that the PEA licensee will not be authorized to operate in the RSA licensee's service area.<sup>23</sup> In addition, incumbent PEA licensees with encumbered PEA licenses will only be permitted to add unassigned blocks with encumbrances in aggregate that are at least as great as the blocks they exchange.<sup>24</sup> In that regard, a PEA licensee can opt to exchange a block not encumbered by an RSA licensee for an adjacent block with an RSA licensee whose operations it will have to protect; similarly, it can opt to take a license area that is more encumbered by an RSA licensee in exchange for a block it holds that is less encumbered by an RSA licensee.<sup>25</sup> However, a PEA licensee cannot "upgrade" to an RSA-free block or a license with an embedded RSA license that is less encumbered than the RSA-encumbered license block it currently holds.<sup>26</sup> For the same reasons, an RSA licensee that is co-channel with any PEA licensee cannot make a unilateral move to another block, which

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<sup>19</sup> *See id.* at 8054-55, para. 98.

<sup>20</sup> For example, licensee A holds the 39.00-39.05 GHz block and licensee B holds the 39.10-39.20 GHz block. Licensee A could not request the 38.95-39.00 GHz or 39.20-39.25 GHz blocks (because they would not be contiguous), but it could request the 39.05-39.10 GHz block (because it is contiguous and no other licensee can request it at the lowest level of contiguity). Licensee B could not request the 38.95-39.00 GHz or 39.20-39.25 GHz blocks (because they would not be contiguous) and could not request the 39.05-39.10 GHz block (because licensee A could request that block at a lower level of contiguity).

<sup>21</sup> In order to create 400 megahertz contiguous blocks, a licensee would need to hold two separate 200 megahertz licenses adjacent to one another.

<sup>22</sup> *See Spectrum Frontiers R&O*, 31 FCC Rcd at 8055, para. 99.

<sup>23</sup> *Spectrum Frontiers R&O*, 31 FCC Rcd at 8055, para. 99.

<sup>24</sup> *Id.*

<sup>25</sup> Licensees should measure encumbrances by MHz-pops. *See Spectrum Frontiers R&O*, 31 FCC Rcd at 8055, para. 99 (*citing* Letter from Davidi Jonas, CEO and President, Straight Path Communications, Inc., to Marlene H. Dortch, Secretary, FCC, GN Docket No. 14-177, at Attach. 1 at 3 (filed April 4, 2016)). As part of any PEA licensee's application to swap to a different block that is co-channel with (i.e., encumbered by) an RSA license(s), the PEA licensee must file with the Commission a statement of the population covered by the RSA license(s) to support its claim that in aggregate, the new PEA block(s) it is applying for results in a license that is equally or more encumbered than the original PEA block(s) it is giving up.

<sup>26</sup> *Spectrum Frontiers R&O*, 31 FCC Rcd at 8055, para. 99.

would result in upgrading the encumbered PEA license block to a less encumbered one. An RSA licensee that is not co-channel with any PEA licensee can apply to move unilaterally into an adjacent channel if that channel similarly is not co-channel with any PEA licensee, and in that case the RSA licensee retains the same geographic contours of the RSA license it held in the channel it is swapping.

*Fifth*, the Bureau will accept plans that are agreed to by all incumbent licensees within a relevant area as long as the plan increases the amount of contiguous spectrum for at least one of the licensees and does not increase the aggregate MHz-Pops held by those licensees in the relevant area.<sup>27</sup> For this purpose, we define the relevant area as a PEA, unless any RSA licenses in the PEA cross that PEA boundary, in which case the adjacent PEA(s) that the RSA license overlaps must also be included in the relevant area. We define relevant licensees as both PEA license holders and RSA license holders whose license area falls within that relevant area.<sup>28</sup> These plans may include not only voluntary swaps among incumbents' license holdings but also use of the FCC's inventory of unassigned 39 GHz spectrum blocks. The Bureau will also accept plans from a subset of licensees in an area that agree to license swaps provided that they meet these same criteria and do not infringe on the ability of the other licensees in the area to apply for blocks contiguous to their existing license holdings pursuant to the criteria above. Licensees applying to modify their licenses pursuant to a voluntary agreement should file a copy of that agreement with their application.<sup>29</sup>

Further, while this approach is voluntary, the Commission emphasized that "it is [the Commission's] hope and expectation that all licensees will take advantage of this opportunity to convert their licenses to the new flexible use licensing scheme and band plan."<sup>30</sup> Notably, "under Section 316 of the Act we retain the right to modify any license consistent with the public interest."<sup>31</sup>

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<sup>27</sup> *Id.* at 8054-55, para. 98. Notably, we would not require swaps in this circumstance to be adjacent to one another so long as overall contiguity is increased. In other words, with the agreement of all incumbent licensees in an area, unassigned 200 megahertz blocks that are otherwise not adjacent and contiguous for any licensee could be included in a swap plan.

<sup>28</sup> If only one licensee holds licenses in a relevant area, the Bureau will accept applications in which the licensee proposes to acquire the same amount of MHz-Pops in the relevant area that it proposes to relinquish, as long as it meets the end goal of creating a contiguous block or blocks of spectrum. *Spectrum Frontiers R&O*, 31 FCC Rcd at 8054-55, para. 98.

<sup>29</sup> Licensees who are swapping spectrum pursuant to an agreement should file their channel swap applications at the same time and each should file a copy of the channel swap agreement with their application.

<sup>30</sup> *Id.* at 8055-56, para. 100.

<sup>31</sup> *Id.*

**Further Assistance**

Detailed filing instructions for the 39 GHz rebanding process will be available at <https://www.fcc.gov/wireless/support/universal-licensing-system-uls-resources/39ghz-channel-swap-instructions>.

Filing questions may be directed to FCC Licensing Support via the web at <https://www.fcc.gov/wireless/available-support-services>, or by telephone at 1-877-480-3201 (select option #2). The support hours of operation are 8 a.m. to 6 p.m. ET, Monday through Friday (except Federal holidays).

Legal questions regarding this Public Notice may be directed to Simon Banyai (Simon.Banyai@fcc.gov; 418-1443), Broadband Division, WTB.

By the Chief, Wireless Telecommunications Bureau

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