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FCC Expands Spectrum Available for 5G Wireless Deployment

The Federal Communications Commission (FCC) recently adopted [a number of orders and proposed rules](#) affecting the availability and use of millimeter-wave spectrum for advanced fifth generation (5G) wireless networks. This is the third set of actions under the *Spectrum Frontiers* umbrella that the FCC has undertaken in support of more rapid expansion of 5G wireless technology in response to increasing market demand.

The FCC's most recent orders clarify flexible use rules for spectrum in the desirable 24 GHz band as well as other millimeter-wave bands in advance of the 28 and 24 GHz spectrum auctions expected to commence in late 2018 and early 2019. The FCC's new rules for the use of millimeter-wave bands for 5G adopted include:

- approving an option to demonstrate 25% geographic coverage, possibly more suitable for Internet of Things deployments, as an alternative to showing 40% population coverage within Upper Microwave Flexible Use (UMFUS) license areas to fulfill buildout requirements;
- requiring equipment operable on any frequency in the 24 GHz band to be able to operate on all 24 GHz frequencies;
- developing a sharing framework to allow providers to use the 24 GHz band for both terrestrial wireless operations and Fixed Satellite Service (FSS) earth stations; and
- eliminating pre-auction spectrum aggregation limits in the 28, 37 and 39 GHz bands previously set at 1250 MHz.

In addition, the FCC also seeks further comment on several proposals, including:

- opening an additional 2.75 GHz of spectrum in the 26 GHz and 42 GHz bands to 5G wireless services;
- defining the coordination mechanism between federal and non-federal users in the lower 37 GHz band, and
- how the 42 GHz band could be used to provide commercial wireless broadband service including opportunities for unlicensed and shared use.

In addition, a particularly contentious aspect of the orders eliminates bright-line, pre-auction aggregate spectrum ownership limits in favor of a post-auction, case-by-case review of spectrum holdings. Initially, the FCC had established pre-auction aggregate limits on the amount of millimeter-wave spectrum an entity could acquire at auction in the 28, 37 and 39 GHz bands in the [2016 Spectrum Frontiers Report and Order](#). Later, the FCC [declined to adopt a similar bright-line rule for the 27 and 47 GHz bands](#), citing discouragement of development and a lack of ability to predict the optimal amount of spectrum needed for 5G wireless development. In the absence of petitions for reconsideration of that decision, the FCC proposed to eliminate the pre-auction ownership limit for the 28, 37 and 39 GHz bands.

This decision to remove pre-auction spectrum ownership limits proved politically divisive. Jessica Rosenworcel, currently the lone Democratic commissioner following Mignon Clyburn's departure in early June, strongly dissented on this issue. She argued the Communications Act requires avoiding undue aggregation of spectrum by purposefully structuring auctions to bring in diverse spectrum interests. In contrast, Republican commissioner Michael O'Rielly supported the elimination of the limit and advocated for even less government scrutiny,

voicing concern that the case-by-case review is an unnecessary screening mechanism.

Ultimately, the FCC's recent decision regarding ownership limits represents a sort of middle ground, abandoning the bright-line, pre-auction ownership limit but adopting a new *ex-post* case-by-case review based on the 1850 megahertz threshold currently used for reviewing secondary market transactions in the 27 and 47 GHz bands. That threshold provides for flexible constraints, if necessary, based on the facts of each case. The review process now adopted is the "standard competitive analysis" as articulated in the context of the 2008 700 MHz auction (Auction 73): define the product and geographic markets, apply an initial screen of spectrum ownership, and then conduct a market-by-market analysis to determine if the aggregate ownership results in competitive harm.[1] If the analysis determines that the aggregate ownership does not result in such harm, the FCC can permit holdings beyond the 1850 MHz threshold.

The FCC argues that such a review process fulfills its obligation to avoid excessive concentration while providing flexibility to industry during the auction phase. It remains to be seen just how this new review process will play out in the context of 5G spectrum auctions. The 28 GHz auction in November 2018 could be the first test.

ENDNOTE

[1] *Union Tel. Co. Cellco P'ship d/b/a Verizon Wireless, Applications for 700 MHz Band Licenses*, Auction No. 73, Memorandum Opinion and Order, 23 FCC Rcd 16787, 16791–92, 16796, para. 9 (2008).

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