

November 09, 2017

Ms. Marlene Dortch
Secretary
Federal Communications Commission
445 12th Street, S.W.
Washington, D.C. 20554

Re: Dynamic Spectrum Alliance Ex Parte, Use of Spectrum Bands Above 24 GHz For Mobile Radio Services (GN Docket No. 14-177, IB Docket Nos. 15-256 and 97-95, RM-11664, and WT Docket No 10-112)

Dear Ms. Dortch:

The Dynamic Spectrum Alliance (DSA)¹ respectfully submits this ex parte to urge the Commission to retain a balance of spectrum access approaches in the *Draft Spectrum Frontiers Second Report and Order*.² DSA appreciates the Commission's decision in the *Draft* to reaffirm its decision to make the 64-71 GHz band available on an unlicensed basis, and urges the Commission to take the same action with respect to the coordinated shared access between all users in the 37-37.6 GHz band.

The rapid evolution towards 5G technology brings with it an opportunity to evolve the Commission's spectrum policy framework to meet the realities of new technologies and business models. Exclusive use, shared licensing, and unlicensed all play a part in that model. This is especially true in millimeter wave (mmW) spectrum, which a) has natural properties that facilitate sharing; and b) is in incredibly high supply, which can accommodate a variety of different spectrum access models simultaneously without cost.

DSA strongly supports the Commission's decision to deny the Petitions for Reconsideration asking for a significant portion of the 64-71 GHz band to be made available on an exclusively-licensed basis.³ The record in support of the Commission's decision was substantial and demonstrated the public interest benefits in adding this 7 gigahertz of spectrum to the existing adjacent unlicensed spectrum.⁴

¹Our membership spans multinationals, small-and medium-sized enterprises, and academic, research, and other organizations from around the world, all working to create innovative solutions that will increase the amount of available spectrum to the benefit of consumers and businesses alike. A full list of DSA members is available on the DSA's website at www.dynamicspectrumalliance.org/members/.

² *Use of Spectrum Bands Above 24 GHz, et al.*, Second Report and Order, Second Further Notice of Proposed Rulemaking, Order on Reconsideration, and Memorandum Opinion and Order, *Circulation Draft* (Oct. 26, 2017) (*Draft Second R&O or Draft*).

³ See *Draft Second R&O* at p. 50-51.

⁴ See *id.* As the Commission states: "Contrary to petitioner's arguments, the Commission thoroughly articulated the public interest benefits of making 64-71 GHz available for unlicensed use, and the Commission's decision took into account the needs

Similarly, DSA strongly urges the Commission to deny the Petitions for Reconsideration asking the Commission to make the 37-37.6 GHz band available on an exclusively-licensed basis, shared only between federal and non-federal users.⁵ The Commission's decision to make this small amount of spectrum available on a coordinated shared basis between all users is based on a recognition of the fact that the U.S. can lead in 5G by creating multiple paths for new technologies and services to emerge.⁶

Licensed 5G technologies are still in the very early stages of development. Instead of waiting to study every possible use case that may ultimately benefit from 5G, the Commission is moving fast to make spectrum available. But without low-barrier access to licensed mmW spectrum, the Commission would be betting on only one possible outcome. Truly flexible and technologically-neutral spectrum policy will create avenues for new technologies to emerge, without the need to raise billions of dollars to participate in a spectrum auction. If all licensed spectrum is available only through auction, the Commission would be explicitly choosing a specific technology and business model. There is little doubt that the mobile wireless industry will invest in new technologies and services utilizing the mmW bands. Maintaining 600 megahertz of coordinated shared spectrum, however, comes at no cost to that model. This is particularly true given the almost 5 GHz of spectrum being allocated exclusively to the licensed services. Instead, shared spectrum access creates an opportunity to multiply the economic activity generated by mobile wireless industry.

Maintaining 600 megahertz of coordinated shared spectrum also creates an opportunity for the private sector and government users to work together to continue to develop robust and effective sharing models and techniques. Federal users have a chance in the evolution of 5G to share in the benefits, including through access to advanced technologies that are better able to share with commercial systems. Working together, federal and non-federal operators could advance sharing techniques that could be applied in other circumstances to make new bands available for commercial use in the future.⁷

Further, we urge the Commission to maintain the concept of use-or-share (opportunistic access) across the 37 GHz and 39 GHz bands and reject the Petitions for Reconsideration of this key sharing principle. Use-or-share is a powerful regulatory construct that the Commission has already adopted in the Citizens Broadband Radio Service at 3.5 GHz and the post-auction 600

of both licensed and unlicensed services." *Id.* at p. 51 ¶ 152.

⁵ See CTIA-The Wireless Association Petition for Reconsideration at 24-26 (Dec. 14, 2016); Competitive Carriers Association Petition for Reconsideration at 6-7 (Dec. 14, 2016); T-Mobile Petition for Reconsideration at 6-8 (Dec. 14, 2016); 5G Americas Petition for Reconsideration at 3-9 (Dec. 14, 2016)

⁶ *Use of Spectrum Bands Above 24 GHz, et al.*, Report and Order and Further Notice of Proposed Rulemaking, 31 FCC Rcd 8014, 8017-18 ¶¶ 1-3 (2016) (*Frontiers R&O and FNPRM*).

⁷ See *Id.* at 8060, ¶¶ 113-115.

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MHz bands, as both of those bands utilize database tools to manage shared spectrum environments. The opportunity to drive significantly greater spectrum utilization through the use-or-share requirements should not be foreclosed here until a decision is made on the shared use of 37.0-37.6 GHz band. In principle, if a database mechanism is selected to manage shared use of the 37.0-37.6 GHz frequency range, the database may be extensible to facilitate opportunistic access across the entire 37.0-40.0 GHz range. Given the propagation characteristics of mmW spectrum, shorter distance propagation and poor building penetration, an absence of this capability will make certain to leave spectrum unutilized in most geographic areas of the country (both rural as well as in-building), without any justifiable benefit.

In order to move forward with the process of developing a robust and effective sharing regime for the 37-37.6 GHz band, we strongly urge the Commission to deny the Petitions for Reconsideration. With clarity that this band will be available for shared access between federal / non-federal users and non-federal / non-federal users, the private sector and government users can partner together quickly to make this band available for 5G technologies in the near term, enhancing the Commission's efforts to capitalize on all of the benefits that 5G may bring.

Sincerely,

A handwritten signature in black ink, appearing to read 'Kalpak Gude', is written over a light blue horizontal line.

Kalpak Gude
President
Dynamic Spectrum Alliance