

INNOVATION ECONOMY ALLIANCE

VIA ELECTRONIC FILING

15 April 2020

Honorable Ajit Pai
Chairman Federal Communications Commission
445 12th Street S.W.
Washington, DC 20554

Re: Unlicensed Use of the 6 GHz Band, ET Docket No. 18-295; Expanding Flexible Use in Mid-Band Spectrum between 3.7 and 24 GHz, GN Docket No. 17-183

Dear Chairman Pai,

Because of your leadership, last year was another great year for consumers and businesses as much needed licensed spectrum was auctioned and put in the spectrum pipeline, and critical decisions were made by the FCC related to opening up C-band and 5.9 GHz slices of spectrum for new uses. Those decisions, in part, made 2019 the year that 5G raced ahead, years ahead of schedule as the next generation of wireless spreads across the country. Such efforts will pay dividends in innovation for years.

Now the next step forward is being proposed. The plan to allow unlicensed devices to share the entire 6 GHz band with incumbent licensees, if adopted, will increase the amount of spectrum available for wi-fi by nearly five-fold, so there is much to cheer about.

As you are well aware, the challenge for the FCC has been, and will continue to be, to fill the “spectrum pipeline” with more available spectrum to meet the ever-increasing demand by consumers. Recently the need for more mid-band spectrum has been obvious. Mid-band spectrum (1GHz to 6GHz bands) is the sweet spot swath of spectrum that combines range and power in the best balance, making it attractive for a range of uses. Given that no new mid-band unlicensed spectrum has been released in a decade the currently available bands are reaching exhaustion, becoming increasingly congested.

Thoughtful leadership by the FCC to continue to maximize use and availability throughout the 6 GHz band permits future generations of wi-fi to be deployed, providing the 5G experience in our homes and businesses, as well as in urban and rural communities. As has been often detailed, 5G enables all that we that the country has come to expect from wireless communications such as the intelligence of things, virtual reality and the increasingly obvious need for tele-health care and distance learning.

The 6 GHz band does currently have licensed users operating in it, such as electric utilities, some public safety operations and electronic news over-the-air programming. While such incumbent use should not be impeded, others could use the band as well.

Some have raised concerns that some low power devices and very low power devices could still cause interference, even if unlikely. Regardless, they raise an important issue. Incumbent users should not

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experience interference or lessened quality of what they already have. Those who have paid for a license should not have the property rights for which they paid be diminished.

The current plan does take steps to address this issue allowing for standard wi-fi power to operate in two large parts of the band with open space next to each part to protect against interference with other uses. In addition, an automatic frequency coordinator, an advanced database technology, would be required to guard against interference. Such technology is important and has been successfully used before for the same purpose. Low power wi-fi will be permissible through the entirety of the 6GHz band.

The FCC engineers and National Telecommunications and Information Administration have a history of being competent in successfully facing the challenge of maximizing the use of spectrum, including the use of database technologies to help in avoiding interference. Moreover, unlicensed spectrum operates as a second priority in any band to limit harmful interference, and must shut down if there is a problem. But all said, interference must be guarded against to preserve function and expectations.

Given its experience, the FCC has presented a plan that will allow wi-fi devices to operate alongside the current users of the spectrum band. This is great news as the FCC is doing what can be done to maximize spectrum given current restraints.

But, going forward, a plan to include more licensed spectrum must be developed. In addition, a continuing focus on mid-band spectrum is a must.

The combination of its actions now, and the continued focus on next steps for a mid-band and licensed plan is just what the country needs as the roll out of 5G continues enhancing the US global leadership role in broadband. The Innovation Economy Institute and the Innovation Economy Alliance appreciate your hard work and vision. We cheer your current direction and are eager to see the solid plans developed for going forward in other areas.

Sincerely,

A handwritten signature in black ink, appearing to read "B. H. D. Jones", is positioned above the typed name and title.

Executive Director

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