

**STATEMENT OF
CHAIRMAN AJIT PAI**

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

The coronavirus pandemic has temporarily changed nearly every aspect of our lives. Most notably, of course, millions of American adults and children are staying at home. Many of those households have multiple connected devices; parents and kids may be using laptops, tablets, and smartphones, all at the same time. That might generate friction, but for the magic of the unlicensed airwaves—better known to most as Wi-Fi. For many of us, Wi-Fi has helped keep us connected to our families and friends, as well as the outside world. It enables children to take part in distance learning while their parents participate in video conferences for work. It allows Americans with medical issues to have virtual doctor’s appointments while those they live with stream *Tiger King* on Netflix.¹ In short, sheltering in place would be a lot more difficult without Wi-Fi.

Of course, even before anyone had heard of COVID-19, Wi-Fi already carried more than half of the Internet’s traffic, and offloading mobile data traffic to Wi-Fi was vital to keeping our cellular networks from being overwhelmed. In a very real sense, Wi-Fi is the fabric that binds together all our digital devices.

And Wi-Fi will be even more important in the years to come. By one estimate, the economic value created by Wi-Fi in the United States is projected to double by 2023—reaching nearly \$1 trillion.

To realize that potential, we need faster, stronger Wi-Fi networks. The good news is that the next generation of Wi-Fi, commonly called Wi-Fi 6, has already started rolling out. Wi-Fi 6 will be over two-and-a-half times faster than the current standard, and it will offer better performance for connected devices. But in order to fully take advantage of the benefits of Wi-Fi 6, we need to make more mid-band spectrum available for unlicensed use. It’s been a long, long time since we did that—and consumers deserve it.

So today, we take a bold step to increase the supply of unlicensed spectrum: we’re making the entire 6 GHz band—a massive 1,200 megahertz test bed for innovators and innovation—available for unlicensed use. By doing this, we are effectively increasing the amount of mid-band spectrum available for Wi-Fi by almost a factor of five. This will be a huge benefit to consumers and innovators across the nation. Wi-Fi NOW’s Claus Hetting, a champion of Wi-Fi innovation, said it perfectly: “The truth is that this 6 GHz spectrum boost will launch the Wi-Fi industry into a new growth trajectory. It will boost Wi-Fi’s massive indoor dominance. And surely—with the help of emboldened entrepreneurs everywhere—it will bring low-cost Wi-Fi (and unlicensed) connectivity to places where it has never been.”

Ultimately, I expect that 6 GHz unlicensed devices will become a part of consumers’ everyday lives. And I predict the rules we adopt today will play a major role in the growth of the Internet of Things, connecting appliances, machines, meters, wearables, smart televisions, and other consumer electronics, as well as industrial sensors for manufacturing. At the same time, our approach will ensure that incumbents in the 6 GHz band are protected from harmful interference. The microwave services that already use this band are critical to the operations of utilities, public safety, and wireless backhaul operations. And we are ensuring that those incumbents are protected by requiring the use of automated frequency coordination systems, which will only allow new standard-power operations in areas that will not cause interference to incumbent services, and by placing conservative power limits on low-power indoor operations.

Our decision today will also help us meet the mandate set forth by Congress in RAY BAUM’S Act to make more spectrum available for unlicensed use. It is part of our aggressive and balanced

¹ I admit nothing. But it may be surmised that I have an opinion about Carole.

spectrum strategy: push more licensed and unlicensed spectrum into the commercial marketplace, including a mix of low-band, mid-band, and high-band spectrum. And freeing up this spectrum for unlicensed use will also help advance our nation's leadership in 5G technologies. In fact, Cisco projects that 59% of mobile data traffic will be offloaded to Wi-Fi by 2022. And cellular operators will have a chance to augment their 5G mobile broadband services by using the 6 GHz band; 3GPP Release 16 will include a 5G New Radio specification for unlicensed, called 5G NR-U. In sum, the gain here to unlicensed users will also be a gain for their licensed counterparts.

In addition to the Report and Order, today's Further Notice of Proposed Rulemaking explores possibilities for very low power devices in the 6 GHz band. Very low power devices could enable a new and innovative generation of personal area network technologies with low latency, high capacity, and all-day battery life. These very low power devices could include accessibility technology for Americans with disabilities, virtual reality gaming, augmented reality glasses, in-vehicle systems, and other emerging technologies which we can only now dream of. We look forward to compiling a robust record and acting quickly to make 6 GHz available for these very low power uses.

Our decision today benefited greatly from the extensive comments in the record and feedback from a variety of stakeholders. In particular, I'd like to thank broadcasters, wireless Internet service providers, cable operators, content distributors, public safety entities, utilities, and all the various industries that engaged in these issues in good faith and provided constructive feedback on our proposals. In order for the future of the 6 GHz band to be successful, we will need to see continued cooperation and constructive engagement from all these stakeholders.

I'd also like to thank all our hardworking FCC staff. This is one of the most complicated proceedings from an engineering perspective that the Commission has encountered in many years. And we couldn't have reached this point without Bahman Badipour, Jamie Coleman, Monisha Ghosh, Navid Golshahi, Michael Ha, Ira Keltz, Paul Murray, Nick Oros, Barbara Pavon, Jamison Prime, Ron Repasi, Max Staloff, Hugh VanTuyl, and Aole Wilkinsel from the Office of Engineering and Technology; from the Wireless Telecommunications Bureau, Chris Andes, Ken Baker, Steven Buenzow, Kamran Etemad, John Lambert, Sean Spivey, and Janet Young; from the Office of General Counsel, Deborah Broderson, Mike Carlson, David Horowitz, Tom Johnson, Keith McCrickard, and Bill Richardson; from the Office of Economics and Analytics, Catherine Matraves, and Patrick Sun; from the International Bureau, Jose Albuquerque and Bob Nelson; from the Enforcement Bureau, Matthew Gibson, and Kathy Harvey; from Public Safety and Homeland Security Bureau, Brian Marengo and Michael Wilhelm; and from the Media Bureau, Sean Yun.