

STATEMENT OF COMMISSIONER AJIT PAI

Re: *Revision of Part 15 of the Commission's Rules to Permit Unlicensed National Information Infrastructure (U-NII) Devices in the 5 GHz band*, ET Docket No. 13-49.

Flexible unlicensed spectrum use was one of this country's great innovations in the 1980s. The Commission expanded several so-called "junk" bands to permit additional unlicensed uses and streamlined the Part 15 rules accordingly. Unlicensed spectrum in the 2.4 GHz and 5 GHz bands is now some of the most valuable spectrum in the world for broadband. And consumers are the ultimate beneficiaries of unlicensed-use technologies such as Wi-Fi and Bluetooth. Millions of Americans rely on Wi-Fi every day to connect their laptops, their smartphones, and their tablets to the Internet. And in the words of *The Big Bang Theory's* Sheldon Cooper: "Everything is better with Bluetooth."

What excites me about today's Notice of Proposed Rulemaking is that we are building on these past successes and using spectrum ideally suited for unlicensed use. The short-range propagation characteristics of 5 GHz spectrum enable localized reuse with minimal risk of interference. The next-generation Wi-Fi standard, IEEE 802.11ac, will be finalized soon. Manufacturers are already building devices to work on 5 GHz spectrum. And enhancing the contiguity and size of the 5 GHz blocks contemplated in the item should allow wider channels for higher bandwidth transmissions. For example, a 160 MHz-wide channel could deliver 1 gigabit of data per second. *That's* "Super Wi-Fi."

I am most pleased that today we are teeing up the expansion of unlicensed use by a full 195 MHz in the 5 GHz band. I have called on the Commission to do so since October.¹ We were not obligated to go this far—the Spectrum Act only required that we commence a proceeding on opening up 120 MHz²—but taking this step just makes sense. More spectrum will allow higher-speed, higher-capacity connections and will mean less congestion in apartment buildings and coffee shops, libraries and offices. For all these reasons, putting these bands to better commercial use could have tremendous benefits.

Achieving this vision will not be without its challenges. The statute lets us expand unlicensed use into the 5350–5470 MHz band only if we determine that "licensed users will be protected by technical solutions, including use of existing, modified, or new spectrum-sharing technologies and solutions." We also must find that "the primary mission of Federal spectrum users . . . will not be compromised by the introduction of unlicensed devices."³ To help us in these tasks, the National Telecommunications and Information Administration (NTIA) has reported on the potential impacts to federal government users from expanding unlicensed use.⁴ And I appreciate their work. But Congress gave the FCC the ultimate responsibility, so I look forward to reviewing comments with an open mind. Given the wide swaths of spectrum already allocated to the federal government, I hope that we will consider whether Federal users *should* alter their systems or operations to accommodate unlicensed devices in this spectrum⁵ and what solutions will work, keeping in mind the costs and benefits of all potential options.

¹ Remarks of Commissioner Ajit Pai at CTIA's MobileCon (Oct. 10, 2012), <http://go.usa.gov/4tkA>; *see also* Statement of Ajit Pai, Commissioner, Federal Communications Commission, Hearing before the Subcommittee on Communications and Technology of the U.S. House of Representatives Committee on Energy and Commerce (Dec. 12, 2012), <http://go.usa.gov/4t8Q>.

² Middle Class Tax Relief and Job Creation Act of 2012, § 6406(a)(1).

³ *Id.* § 6406(a)(2).

⁴ NTIA, Evaluation of the 5350–5470 MHz and 5850–5925 MHz Bands Pursuant to Section 6406(b) of the Middle Class Tax Relief and Job Creation Act of 2012 (Jan. 2013), *available at* <http://go.usa.gov/4tZH>.

⁵ *See id.* at ii ("NTIA assumed that the federal agencies will not alter their systems or operations to accommodate U-NII devices on a shared basis in the potential 5 GHz expansion bands.")

Today's Notice is just the beginning of what will surely be a highly technical process. Suffice it to say that the Commission could not do it without the support of the Office of Engineering Technology, especially Julius Knapp, Bruce Romano, Aole Wilkins, Geraldine Matisse, Mark Settle, Karen Ansari, and Navid Golshahi. Thank you for your work on this item and for all the work you do each day to advance the FCC's mission.