

**STATEMENT OF
COMMISSIONER JESSICA ROSENWORCEL**

Re: *Revision of Part 15 of the Commission's Rules to Permit Unlicensed National Information Infrastructure (U-NII) Devices in the 5 GHz Band*

This proceeding sits at the intersection of two paradigm-shifting social and business trends. Call it a collision of cool.

The first trend is well known in these parts—the move to mobility. The statistics speak for themselves. In the next four years, mobile traffic is expected to increase by 11 times. By that time there will be more mobile devices than people on earth. But it is more than sheer volume that is at issue. It is the fact that wireless functionality will be built into everything around us and everything we do as we approach the coming Internet of Things.

The second trend is better known in technology and innovation corridors around the country—from Austin to Boston, from Seattle to Silicon Valley. It is the move toward sandboxes. Software developers often code sandboxes into their programs. This code allows others access to a portion of the program without harming the host platform. It provides a space to experiment within the program, minimizing risk before introducing ideas at a broader scale.

Up until now, sandbox culture has mostly resided within software applications. But I think it has application to a lot of what comes before us at this agency—and I've spoken before about how I think it is a useful framework for our technology transitions trials.

In fact, the sweetest spot for the sandbox could come from combining its experimental possibilities with the power of unlicensed spectrum. The innovative potential is big. By making more of our airwaves subject to access by rule rather than license, we reduce barriers to entry for innovators. We open up spaces for creative use and experimentation in the wireless network from the software layer to the equipment layer.

That is why what we do here is important. Today, we increase opportunities for unlicensed in the 5 GHz band. Critically, we take the flexible rules that have already made the 5.725-5.825 GHz band an unlicensed success story and we expand them to the 5.150-5.250 GHz band. While that sounds technical, this change will have real impact. Because we are doubling the unlicensed bandwidth in the 5 GHz band overnight.

So what does that mean? For starters, if you like Wi-Fi, that is a lot more. Cheers for that. But the power of unlicensed goes beyond onramps to the Internet and offloading for licensed services. It is the power of setting aside more of our airwaves for experiment and innovation without license. It is bound to yield new and exciting developments. It is also bound to be an economic boon. After all, the economic impact of unlicensed spectrum has been estimated at \$140 billion annually. By any measure, that is a lot.

So we should not stop here with the 5 GHz band. After all, good spectrum policy will always require a mix of licensed and unlicensed services. Treating them as competing is a relic from the past, because going forward they are complementary—and more and more devices and services are bound to incorporate the use of both.

That means we need to continue to seize unlicensed spectrum opportunities across other spectrum bands. In the near term, that means we should develop the possibilities of using unlicensed bandwidth in

the 3.5 GHz band. We also should find lawful ways to provide unlicensed services in the 600 MHz spectrum band now used by broadcasters.

But above all, we need to create more opportunities for combining the great power of mobility with the cool possibilities of sandbox experimentation—and I think unlicensed spectrum is the sweet spot where it starts.