

**STATEMENT OF
COMMISSIONER BRENDAN CARR**

Re: *Expanding Flexible Use of the 3.7 to 4.2 GHz Band*, GN Docket No. 18-122; *Expanding Flexible Use in Mid-Band Spectrum Between 3.7 and 24 GHz*, GN Docket No. 17-183; *Petition for Rulemaking to Amend and Modernize Parts 25 and 101 of the Commission's Rules to Authorize and Facilitate the Deployment of Licensed Point-to-Multipoint Fixed Wireless Broadband Service in the 3.7-4.2 GHz Band*, RM-11791; *Fixed Wireless Communications Coalition, Inc., Request for Modified Coordination Procedures in Band Shared Between the Fixed Service and the Fixed Satellite Service*, RM-11778

Americans now send and receive nearly two exabytes of mobile data per month. If you have no idea how much data is in an exabyte, you're not alone. The World Cup final is on Sunday, so I thought I'd put it in soccer terms. Stay with me. If one gigabyte were the size of a soccer ball, and you were to fill a World Cup stadium from the field to the roof with them, it would take eleven stadiums to equal those two exabytes.

Not a soccer fan? OK, try this. With the amount of mobile data Americans send, you could transmit the entire printed collection of the Library of Congress every 12 seconds.

But Americans aren't just reading library books on their smartphones, of course. They're binge watching videos, they're hearing the voices of loved ones through VoLTE calls, and they're engaging the world around them using augmented reality. They're lifting themselves up and providing more opportunities for their families.

A few weeks ago in Philadelphia, I had the privilege of meeting someone who used her mobile broadband connection—and a whole bunch of grit and determination—to bring her family out of poverty and into a new life. Her name is Tommi. She's the mom to five kids, and many people have had an easier path in life. Tommi grew up in public housing. She dropped out of high school after giving birth to her first child. For the next 16 years, she made calls for a debt collection agency, which she described as a “dead end job.” Tommi knew that she could do more with her life. So she enrolled in Philadelphia's Orleans Technical College. It was “four years of peanut butter and jelly sandwiches—often made for me by my kids,” she said.

Tommi earned a perfect 4.0 GPA. She got a job at the Public Housing Authority, and she just bought her first home. Now she's starting a masters program in mental health so that she can give back to her community. None of this, Tommi told me, would have been possible without a mobile broadband connection. “Broadband is the backbone of a community—for finding a job, for education,” she said. A mobile hotspot that she shared with her neighbors let her finish her homework, which was required to be completed online. A mobile connection enabled her to apply for employment and for admission to school.

Tommi is an inspiration. Getting the chance to meet her is something that has stuck with me. But in a lot of ways, Tommi's story is not unique. At the school in Philadelphia's Sharswood neighborhood where I met her, I spoke with kids that are in much the same position Tommi was in just a few years ago. Today, the Public Housing Authority is partnering with a wireless carrier to give each student at that school a tablet and a mobile connection. The Public Housing Authority did this because digital literacy is no longer optional for the next generation.

How do we ensure that Americans, and especially the least advantaged Americans, have the opportunity to learn, grow, and provide for a family of their own, like Tommi? It begins with a connection.

Which brings us back to this item—to all of those soccer balls and the eleven World Cup stadiums filled to the brim every month. Five years from now, that data consumption will look more like 60 stadiums—and growing. The challenge we face is keeping up with that demand so that everyone gets a fair shot at next-generation opportunities.

At the federal level, we can help empower the private sector to meet Americans' mobile data demand through smart infrastructure policies and aggressive allocation of spectrum. On the infrastructure side, the Commission cut 1.6 billion dollars of red tape in our March order. We did so by exempting small cells, the physical building blocks of 5G, from certain federal historic and environmental review. And we're looking at additional reforms with the goal of ensuring that wireless infrastructure can be deployed in all communities.

The other key input for the future of mobile broadband is in the item before us: spectrum. I am proud of what the Commission has done so far on this front in just the past few months. In February, we paved the way for opening up spectrum above 95 GHz. In March, we sought comment on designating the 4.9 GHz band for flexible use. In April, we took a step towards bringing over 1.5 GHz of millimeter wave spectrum to auction. In May, we started a proceeding to put spectrum in the 2.5 GHz band to even more productive use. In June, we finalized rules for the 24 GHz band and sought comment on opening up the 26 GHz and 42 GHz bands for flexible use. And just this week, Chairman Pai announced that we're moving forward with the auction of spectrum in the 37 GHz, 39 GHz, and 47 GHz bands next year.

With these efforts and the race to 5G fresh in mind, we have now freed up more spectrum than any other country in the world. We're more than 4 GHz ahead of second place China. But there's still work to be done in the mid-band, where other countries have freed up substantial amounts of spectrum. That's why today's item is so important. The C-band encompasses 500 MHz of mid-band spectrum that some believe is primed for 5G deployment. As the item recognizes, we have some challenges in bringing more intensive use to this band in the U.S., including long-standing incumbent operations. This decision tees up a number of potential paths forward.

I want to draw particular attention to the notice's section on a market-based mechanism for clearing the spectrum. Under that option, we would authorize incumbents to clear on a voluntary basis all or nearly all of the band and allow them to engage in secondary market transactions. In my view, this could provide the quickest path to clearing the spectrum, and it could do so without the inevitable issues that arise when the Commission begins imposing mandates and repurposing the spectrum itself.

Financial analysts predict that investment in 5G infrastructure will peak around 2021. If this spectrum will be used for 5G, it makes the most sense to press forward with options that have the best shot at bringing this spectrum online during the initial 5G rollouts. So I encourage all stakeholders to come together to help resolve the issues.

After all, winning the race to 5G is important. And success in my view is ensuring that we get the spectrum and policies in place that will spur deployment and opportunities not just in New York or San Francisco but also in neighborhoods like Sharswood in North Philly.

This is a substantial item. I want to thank everyone who worked on it, especially the team in the Wireless Telecommunications Bureau. It has my support.