

**REMARKS OF FCC CHAIRMAN AJIT PAI
TO THE MEXICO 5G CONFERENCE**

NOVEMBER 25, 2020

It's great to be with you. Or should I say, "es genial estar contigo." Fun fact: In February 2019, I was at the Mobile World Congress in Barcelona, and I was asked to speak at a Latin America Roundtable. As a show of respect to the host nation and my peers on the panel, I delivered my remarks in Spanish. I thought about doing this again today, just for old times' sake. But I know this conference includes our friends from Brazil, and I don't want the Portuguese speakers to feel left out. "De nada"—which works in both Portuguese and Spanish!

One message that is understood in all languages around the globe is that communications technology can improve people's lives and grow our economies. Increasingly, the technology that people think can drive transformative change is 5G.

Soon, these next-generation wireless networks will affect almost every aspect of our society and economy—from businesses to homes, hospitals to transportation networks, manufacturing to the power grid.

Over the past few years, the Federal Communications Commission has aggressively executed our 5G FAST plan to promote the development and deployment of 5G technologies in the United States. This strategy has had three parts: freeing up spectrum for the private sector, promoting wireless infrastructure, and modernizing our regulations to encourage deployment of fiber, which is needed to carry wireless data into the core of the network.

On spectrum, we've been the most aggressive and successful FCC in history. To date, we've already made available through three auctions more high-band spectrum for commercial use than previously was used for terrestrial mobile broadband by all wireless service providers in the United States combined. We've already finished repurposing low-band spectrum in the 600 MHz band for mobile broadband, which is now being used to provide 5G service to areas where over 250 million Americans live.

And we've made a lot of progress on mid-band spectrum, which is appealing for 5G because it combines good geographic coverage with good capacity.

In July 2019, for example, the Commission adopted flexible new rules for the 2.5 GHz band. This is the United States' single largest band of contiguous spectrum below 3 GHz, and it's well-suited for 5G deployment. We recently concluded a Tribal Priority Window to enable Native American Tribes to get early access to 2.5 GHz spectrum in rural areas and intend to auction any remaining spectrum shortly after we finish processing applications filed during that window.

We also made bold changes to bring the 3.5 GHz band into commercial use. Thanks to those changes, this past August, the FCC successfully completed an auction of 70 megahertz of licensed spectrum in the 3.5 GHz band—our first-ever auction of mid-band spectrum for 5G. And we've completed the necessary technical work so that the band's entire 150 megahertz is now available for the private sector.

As you might have seen, in August, the White House and the Defense Department announced that the 3.45-3.55 GHz band should be made available for 5G as quickly as possible. The FCC immediately followed up on that announcement in September, proposing to make this 100 megahertz of contiguous mid-band spectrum available for 5G, while accommodating the limited remaining operations of federal government incumbents. I'm optimistic that we will be able to auction the 3.45 GHz band next year.

But the Commission's biggest auction of mid-band spectrum for 5G is less than a month away. On December 8, we'll begin an auction as part of our reorganization of the 3.7 GHz to 4.2 GHz band—commonly called the C-band. This spectrum is now mostly used by fixed-satellite companies to beam content to video and audio broadcasters, cable systems, and other content distributors. With advances in technology, however, these companies can now provide the same services using alternative technologies or considerably less spectrum.

That's why, this past February, the FCC voted to clear the lower 300 megahertz of the C-band and make 280 megahertz of this spectrum (3.7-3.98 GHz) available for 5G through a public auction. All eligible space station operators currently using this spectrum have committed to quicker relocation to the upper 200 megahertz of the C-band—meaning that the lower 280 megahertz will become available for 5G two to four years earlier than otherwise would have been the case. As I mentioned, this auction will begin on December 8, and we're excited to get it started.

Add all these efforts up, and we are on a path to have a contiguous 530-megahertz swath—from 3.45 to 3.98 GHz—of mid-band spectrum available for 5G.

If you lost track of all those spectrum proceedings, don't worry about it. Because here's the most important point I want this audience to take away from my remarks.

Yes, the actions I've mentioned today will help to spur the deployment of next-generation wireless technologies. But these efforts to make more spectrum available for 5G will have an even greater impact if we can create more opportunities for harmonization. Of course, international spectrum harmonization is the gold standard, but as we have seen at the past few WRCs, that is an enormous challenge. Our region, on the other hand, has done better than any other in identifying harmonization possibilities for 5G spectrum. We may represent many different countries, but I'm proud that over the past few years, we've generally spoken with one voice on spectrum issues.

Earlier, I mentioned how the 600 MHz band is already being widely used for 5G in my country. Part of the credit for this progress goes to bilateral agreements—one between the United States and Mexico and another between the United States and Canada. Our engagement on the 600 MHz band as well as the 700 MHz band demonstrates how critical it is to start international coordination early in the process and to develop a common understanding of the importance of harmonization across our common borders. We may have had differences in our vision for those bands, but our close bilateral relationships enabled us to work through the issues and include in our cross-border agreements the kind of flexibility that is critical to spectrum harmonization.

We should continue to work together to identify regional harmonization opportunities in additional bands. Like the United States, Mexico is developing plans for auctions of the 2.5 GHz and 3.45 GHz bands. And we see our C-band auction as having huge potential for 5G.

It's not too early to look ahead and work toward identifying even more opportunities for harmonization at WRC-23. There's already an agenda item—number 1.2 to be specific—which will consider the possibility of making some bands between 3.3 and 10.5 GHz available for International Mobile Telecommunications, either on a regional or global basis. We should seize this opportunity and others.

I recognize that these discussions will be challenging and that just getting agreement on the wording of this agenda item was difficult. Nonetheless, with the spirit of cooperation and understanding that has gotten us this far with mid-band spectrum, I am confident we will be able to identify additional spectrum at WRC-23, at a minimum within our region.

Before moving away from spectrum, a quick note on unlicensed spectrum. Earlier this year, the FCC made the entire 6 GHz band—a massive 1,200 megahertz test bed for innovators and innovation—available for unlicensed use. And earlier this month, the FCC voted to make available 45 megahertz of

spectrum in the 5.9 GHz band for unlicensed operations. With these actions, we have effectively increased the amount of mid-band spectrum available for Wi-Fi by almost a factor of five. Some suggest that Wi-Fi and cellular spectrum are rivals. But I believe freeing so much spectrum for unlicensed use will advance U.S. leadership in 5G technologies. For instance, Cisco projects that 59% of mobile data traffic will be offloaded to Wi-Fi by 2022. And cellular operators can improve their 5G mobile broadband services by using the 6 GHz band; 3GPP Release 16 will include a 5G New Radio specification for unlicensed spectrum, called 5G NR-U. So to me, cellular and Wi-Fi spectrum are powerful complements, not rivals.

Now, as I mentioned, spectrum is just one of the three planks of our 5G FAST plan. We have also gotten major results on the other two: promoting wireless infrastructure and modernizing our regulations to encourage more fiber deployment, which is essential for wireless backhaul.

When it comes to 5G, we all understand that infrastructure will be essential. 5G's more densified networks will require that we install hundreds of thousands of small cells—an exponential increase in the number of antenna locations for our current networks. And we will need more fiber to connect to more cell sites and carry more data to the core of the network.

At the FCC, we've done a lot to streamline our rules and make it easier to build, maintain, and expand America's wireless and wireline networks.

To make it easier to install wireless infrastructure like small cells, we set a reasonable deadline for cities to rule on siting applications. We also set reasonable limits on siting fees—limits that still allow localities to cover their costs. To make it quicker and cheaper to enable new attachments to poles, we adopted our “one-touch make-ready” policy. Instead of having multiple parties sequentially prepare poles for a new attacher, as was previously the practice, a single construction crew now can do all the make-ready work at once. This not only speeds up network buildout, but also opens the door to new entrants who can increase broadband competition. And by promoting fiber network buildout, we're supporting the expansion of wireless intermediate networks, too.

We've also modernized rules to make it easier for carriers to transition from maintaining yesterday's copper networks to building tomorrow's fiber networks. And we ended utility-style broadband regulation inspired by rules from the 1930s.

These reforms have helped to spur record-breaking capital investments in infrastructure essential for 5G, including fiber-optic cables and small cells. In 2018, and then again in 2019, the United States set records for annual fiber deployment. And the number of new cell sites in the United States has skyrocketed. In 2018 and 2019, we added over 72,000 new wireless cell sites in the United States, 10 times more than the deployments from 2013, 2014, 2015, and 2016 combined.

On top of all these efforts to promote the development and deployment of ultra-fast, high-capacity 5G networks, the FCC is committed to making sure those networks are secure.

For years, U.S. government officials have expressed concern about the national security threats posed by certain foreign communications equipment providers. To counter this risk, the FCC has prohibited the use of money from our Universal Service Fund to purchase or obtain any equipment or services produced or provided by companies posing a national security threat, including the world's largest global 5G supplier—Huawei.

Fortunately, technological innovation has the potential to address some of these security concerns. Open Radio Access Networks, or Open RANs, could transform 5G network architecture, costs, and security. This fall, the FCC held a forum on open, interoperable, standards-based, and virtualized radio access networks. A consensus emerged from the forum that Open RAN technologies are already showing great promise in the United States and around the world, and that the public and private sectors

should continue to encourage development and deployment of these systems, which can enable diversity in suppliers, improve network security, and lower costs.

When it comes to 5G, we cannot afford to make risky choices and just hope for the best. We must see clearly the threats to the security of our networks and act to address them. And the more that the nations represented at this conference can work together and make security decisions based on shared principles, the safer that our 5G networks will be.

In closing, I should note that tomorrow, the United States celebrates the holiday of Thanksgiving. In that spirit, I want you to know that I am very grateful for the opportunity to be with you today and for the chance to work with many of you over the past several years. I am proud of the progress we have made together. And I am excited to build on this foundation to unlock a brighter 5G future across the Americas. Thank you, gracias, y obrigado!