REMARKS OF FCC CHAIRMAN AJIT PAI TO THE NEW YORK STATE WIRELESS ASSOCIATION

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It's great to be with you, and it's great to be in New York. Little known fact: I am technically a native of the Empire State. It's true. I was born in Buffalo. To think, if my parents hadn't moved away when I was a toddler, I would have had a lifetime of torment as a Bills fan. Instead, I've had a lifetime of torment as a Chiefs fan. Although, with Patrick Mahomes, I suppose that I'm no longer in a position to complain about my football team. But speaking of torment, what's going on with the Giants? Their moves this offseason have been so bad, they've made me angry . . . and I don't even care about the Giants. It's so bad that even Jets fans are talking trash. Ouch.

On a more serious note, while it's nice to be back in my "home state," what I'm really excited about is a chance to be with the people who are building the networks of the future. To me, you are the unsung heroes of the digital revolution. Without your work, there would be no app store; no Uber; no 24-hour health monitoring. You not only risk significant amounts of capital to make ubiquitous, high-speed connectivity a reality, your line workers literally risk their lives to build out these networks. Last year, I climbed a 131-foot tower in rural Colorado, and I thought that was heady stuff. Some of your crews go up towers that are significantly taller like it's just an ordinary day at the office, because, for them, it is.

I'm also excited to be with a group that is helping to close the digital divide, which is my top priority as FCC Chairman. We may be gathered in the heart of the world's most dynamic urban center, but your members are also helping to connect people in rural parts of New York that look a lot more like where I grew up in Kansas than the Big Apple.

In fact, my first vote as FCC Chairman was to partner with the State of New York to deliver funds for broadband deployment in upstate areas where residents have been bypassed for too long. So when it comes to your work to extend networks to areas that are unserved or underserved, please know that you have a committed partner at the FCC.

While we want to extend the reach of our wireless networks to cover all Americans, you may have also heard that there's a movement afoot to dramatically enhance the capacity and capabilities of those networks. Of course, I'm talking about 5G, the next generation of wireless connectivity.

When I first became Chairman, every time I spoke about 5G, I'd spend a few minutes up front explaining what it was and why it was a big deal. Today, I feel confident I can skip that explanation, especially with this audience.

At the same time that your industry is focused on 5G, I can assure you that your government is right there with you. I'm not just talking about the FCC. Last fall, the White House hosted a summit on 5G that attracted senior leaders from across industry and multiple federal agencies. And just a couple months ago, to make sure 5G gets that attention that it deserves, the President personally invited me to the White House, where I announced the FCC's latest actions to promote U.S. leadership in 5G.

I'd like to spend the remainder of my time this afternoon walking through the Commission's 5G strategy. But first, I would like to be clear about one thing. For all this talk about our government's focus on 5G, make no mistake that we are pursuing a market-based strategy to promote 5G development and deployment. As the President said at our 5G event, "In the United States, our approach is private-sector driven and private-sector led."

At the FCC, we call our strategy for U.S. leadership in fifth-generation wireless technology the 5G FAST plan. It consists of three central components: freeing up much more spectrum for the

commercial marketplace, promoting wireless infrastructure deployment, and modernizing our regulations to promote more fiber deployment.

Let's start with spectrum. This year, we've been very active in making more of our nation's airwaves available for 5G. In January, we finished an auction of spectrum in the 28 GHz band, awarding nearly 3,000 licenses and raising \$700 million in net bids for the U.S. Treasury. In May, we wrapped an auction of spectrum in the 24 GHz band, which raised more than \$2 billion in net bids.

And at the Commission's July meeting, we are poised to take two more important steps on spectrum to secure American leadership in 5G. First, we will vote on the final rules for an auction of the upper 37 GHz, 39 GHz, and 47 GHz bands, which will start on December 10. This auction will be the largest in American history, releasing 3,400 megahertz of spectrum into the commercial marketplace. All in all, our auctions this year will free up for the commercial marketplace almost 5 gigahertz of spectrum for flexible use. For context, that's more spectrum than is currently used for mobile broadband by all mobile broadband providers in the United States *combined*.

Second, the Commission will vote on opening up more mid-band spectrum for 5G, specifically in the 2.5 GHz band. This is the single largest contiguous band of spectrum below 3 gigahertz, so this is a big opportunity for 5G. And right now, this band is being underused. Indeed, in about half of the country, there is 2.5 GHz spectrum currently lying fallow. That's unacceptable.

If we want to lead the world in 5G, we need to put this valuable spectrum to better use. And my plan for getting this done is simple. We should eliminate the antiquated rules for this band that date back to a time when it was envisioned that this spectrum would be used for educational TV. We should give rural Tribal Nations an opportunity to obtain this spectrum for Tribal Lands. And then we should make the remaining unassigned 2.5 GHz spectrum available for commercial use through competitive bidding.

Adopting these reforms next month would be a big step forward in making more mid-band spectrum available for 5G. But that's not all that we are doing on the mid-band front. Later this summer, we hope to approve the first commercial deployments in the 3.5 GHz band, and we intend to hold an auction next year. Moreover, thanks to the reforms we adopted last year, carriers that win licenses in that auction can efficiently deploy 5G in the 3.5 GHz band. And we continue to work actively with our federal partners on reallocating spectrum in the 3.1-3.55 GHz band for commercial use as well as the complicated task of freeing up spectrum in the 3.7-4.2 GHz band.

Now when it comes to mid-band 5G, one of the most critical steps that the FCC can take is to approve the T-Mobile/Sprint transaction. Right now, Sprint has tremendous mid-band spectrum resources. But the record before the FCC makes clear that the company standing alone does not have the capacity to deploy 5G in this spectrum throughout large parts of rural America. On the other hand, if the T-Mobile/Sprint transaction is approved, the combined company will have the capacity to do just that. Indeed, they have committed to the FCC that they will deploy mid-band 5G to 88% of our nation's population, including two-third of rural Americans. And there would be significant financial penalties if these commitments were not met.

We should seize this opportunity to provide 5G to rural America and close the digital divide. At the end of the day, I'm confident that 5G will be deployed here in New York City and other big cities across the country. But I'm more concerned about whether 5G will make it to rural areas like those in upstate New York. And make no mistake about it, government officials trying to block this transaction are working to stop many upstate New Yorkers and other rural Americans from getting access to fast mobile broadband and all of the benefits that come with it. As former FCC Commissioner Mignon Clyburn recently put it, "Particularly for those on the wrong side of the digital divide, this lawsuit by a small number of state attorneys general would reinforce an unacceptable status quo." I hope that these misguided efforts fail.

Speaking of misguided efforts by government officials, there are some in Washington, DC now making a last-ditch effort to stop 5G deployment in the 24 GHz band. Needless to say, it would send a terrible signal to the private sector if the federal government, after auctioning this spectrum for over \$2 billion, effectively rendered this spectrum worthless. And it certainly would send a terrible message about our nation's commitment to leading the world in 5G.

Here's the bottom line: the FCC and the federal government must base spectrum rules on sound engineering and efficient use of the airwaves. It is not unusual for parties to make hyperbolic claims of disaster from spectrum decisions—we've heard it before. Unlicensed operation in TV white spaces would wipe out TV reception. Ultrawide-band devices would blanket services with interference. Wireless Communications Service would disrupt Satellite Radio. And so many other cases. None of these calamities came to pass. I trust our experienced and talented experts to review these arguments and separate the wheat from the chaff. And when it comes to the 24 GHz band, their message to me has been one of strong and consistent belief that we can protect passive weather sensors while facilitating widespread 5G deployment. And that's what I intend to do.

Now, let me shift from spectrum to wireless infrastructure, the second part of our 5G FAST plan. When it comes to 5G policy, infrastructure is essential. We need to install hundreds of thousands of small cells—an exponential increase in the number of antenna locations for our current networks.

That's why we reformed our historic preservation and environmental regulations so that small cells don't have to jump through the same regulatory hoops as 200-foot towers. That's why we adopted a federal one-touch-make-ready policy that will make it quicker and cheaper to build out networks. And that's why we approved an important order promoting 5G infrastructure. It set a reasonable shot clock for cities to rule on small-cell siting applications and reasonable limits on siting fees—limits that allow localities to cover their costs.

And our reforms are working. In 2018, the number of wireless small cells deployed in the United States more than quadrupled, from 13,000 to more than 60,000. That's substantial progress, and we are looking to keep it going.

Even for 200-foot towers, regulation shouldn't unnecessarily impede infrastructure deployment. That's why we have taken steps to strike the right balance on regulatory oversight, rather than blindly applying red tape to every proposed infrastructure project. For example, earlier this week the FCC unanimously cleared the way for a tower project in upstate New York. The proposal was meant to replace two communications towers with a single new tower providing critical public safety communications—but it had been delayed for years, caught in bureaucratic red tape. After reviewing the facts, which included consideration of environmental impacts by a New York trial court, the Commission unanimously concluded that construction could proceed.

Finally, fiber—the third part of the 5G FAST plan. Here, we've modernized our rules to encourage the deployment of optical fiber for backhaul. That's because 5G isn't just about wireless; we also need strong wired networks to carry all of this traffic as well once it's offloaded from the airwaves. So among other things, we've made it easier for carriers to transition from maintaining yesterday's copper networks to building tomorrow's fiber networks. And we scrapped utility-style broadband regulation inspired by rules from the 1930s.

Our policies on this front are working as well. In 2018, fiber was deployed to more new homes in the United States than any year ever. Average broadband speeds are up substantially year over year. And earlier this month, we learned that investment in broadband networks was up about \$3 billion in 2018, the second consecutive annual increase. This is particularly notable since network investment fell in 2015 and 2016, the last two years of the prior Administration.

So overall, things are looking up in the United States when it comes to 5G. Earlier this year, ABI Research stated flatly that "it is the United States who will win the 5G race in the short term," specifically

crediting the FCC's policies as a reason why. And more recently, an analysis by CTIA found that "America leads the world with the most commercial 5G deployments of any nation."

I'd like to close my remarks by doing something that I've never done before: say something nice about the New York Yankees. Before I do this, let me clear about one thing. I hate the Yankees. Always have. Always will. I know the younger people in the audience may find this hard to believe, but when I was growing up in Kansas in the 1970s and 1980s, the Royals versus the Yankees was one of the biggest rivalries in all of sport. This is polite company, so I won't mention the infamous Pine Tar Incident, in which George Brett was framed, to the delight of fans in Yankees Stadium.

But I will bring up this year's Yankees team. They have a great story, and (I hate to say it) they're kind of likeable. At one point, six of the Yankees' starting position players were on the DL. The anchor of their lineup has been Luke Voit, who was toiling away in the Cardinals' farm system a year ago. Their ace Luis Severino has not thrown a pitch. And yet, this team is a playoff contender, thanks to guys most people have never heard of, like Gio Urshela.

I bring up this Yankees team not just to pander to my audience, but to make a point. In the wireless sector, as in baseball, a disproportionate amount of attention always goes to the superstars. But the 2019 Yankees remind us of the importance of the players who aren't household names. For the U.S. to lead the world in 5G, and to make sure every American has access to next-generation networks, the largest wireless carriers will have to do their part, but it won't happen without the contributions of the other indispensable players: the small wireless providers, the tower companies, the engineering firms, the property managers, and especially the skilled technicians who get in those bucket trucks and climb those towers to install antennas and maintain communications equipment.

In other words, for the U.S. to lead the world in 5G, we are counting on the members of the New York State Wireless Association.

Your companies help to advance the public interest. And while I will go back to rooting against the Yankees the minute their stars are all back, as long as I am FCC Chairman, I will continue working to advance policies that make it easier for you to do your important jobs. Working together, we can make sure that the U.S. leads the world in 5G and that every New Yorker and every American has access to digital opportunity.