

**REMARKS OF FCC CHAIRMAN AJIT PAI
AT THE 7TH ANNUAL AMERICAS SPECTRUM MANAGEMENT CONFERENCE**

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What an honor it is to share this session with such a distinguished lineup of speakers! Thank you for having me.

We gather at a truly extraordinary time—an age when we see something seemingly every week that sparks awe and wonder and makes us re-think what is possible. Oh, to be alive in the age of Patrick Mahomes. For the first time in my life, I have legitimate Super Bowl hopes for my Kansas City Chiefs. I intend to mention this whenever and wherever possible.

Thank you to Forum Global for inviting me to participate in this vital discussion, and for inviting apparently everybody else at the Commission, as well. I counted 10 senior FCC officials on the agenda. As Shakespeare wrote in *As You Like It*, “Can one desire too much of a good thing?” I guess we’re going to find out. Clearly, you are getting a chance to go deep in the weeds of the FCC’s policy agenda. You’ve taken in the various panel discussions, and you heard yesterday speeches from Commissioner O’Rielly and our chief engineer Julie Knapp, so I’m going to try to step back and put all of these efforts into a broader context.

First off, I think it’s important to note that wireless innovation isn’t just a topic of concern at the FCC, but a priority at the highest levels of our government.

This past Friday, I was at the White House for a summit on 5G. Notably, this summit was spearheaded by the National Economic Council. One might think that a discussion on wireless technology would fall under the rubric of the Office of Science and Technology Policy, and OSTP was certainly a key partner. But NEC’s ownership of this event tells us that the White House sees wireless innovation as an issue of economic competitiveness, first and foremost. And I think that’s exactly right. Seizing the opportunities of 5G is not incidental, but central to our ability to grow our economy, create new jobs, and unleash new services and applications that will raise our standard of living.

The second thing I would note about this forum is that it was an all-hands-on-deck affair. You had the NEC and OSTP from the White House. You had the chairs of the relevant oversight committees from both the House of Representatives and the Senate, not to mention the Chairman of the Senate subcommittee on communications and technology. There were representatives from agencies that you would expect, like the FCC and the National Telecommunications and Information Administration, and some you might not necessarily, like the Departments of Agriculture and Transportation.

The third thing I would highlight is the message that was communicated explicitly by senior White House officials. I think their attitude to wireless innovation was summed up best by NEC Director Lawrence Kudlow when he said, “Let it rip.” Government’s job should be to empower innovators and entrepreneurs to invent the future. We need to harness the power of free markets and make sure unnecessary regulations don’t hold back investment and American ingenuity.

That’s exactly the approach we’ve been taking at the FCC. And that brings me to the Commission’s strategy for promoting 5G investment and innovation.

We call it the 5G FAST plan—a blueprint to Facilitate America’s Superiority in 5G Technology. The plan includes three key solutions: freeing up spectrum, promoting wireless infrastructure, and modernizing regulations. My chief of staff, Matthew Berry, will touch on infrastructure later today, and I

don't want to steal his thunder. But I would like to walk through some highlights regarding spectrum and regulatory modernization.

On spectrum, the FCC has been extremely aggressive. We're making more airwaves available for the commercial marketplace in the low-, mid-, and high-bands. We've conducted the world's first incentive auction in which spectrum once used by TV broadcasters was sold to wireless companies in order to expand bandwidth and coverage for consumers. If you want a detailed update on the re-packing process, there's a breakout session in a couple of hours featuring Hillary DeNigro from the FCC's Incentive Auction Task Force and moderated by Gary Epstein, who shepherded the auction for the Commission.

Looking ahead, we're only weeks away from America's first two high-band 5G spectrum auctions. The 28 GHz band auction will begin on November 14, and soon after it ends, the 24 GHz band auction will start. The 1.55 gigahertz of spectrum in these two high bands will be critical in deploying 5G wireless, Internet of Things, and other advanced spectrum-based services.

And we're not stopping with these two auctions. In the second half of 2019, we intend to hold an auction of three more millimeter-wave spectrum bands: 37 GHz, 39 GHz, and 47 GHz. Between the auctions this year and next, we'll push almost 5 gigahertz of spectrum into the commercial marketplace over the course of the next 15 months. To put that in perspective, that is more spectrum than is currently held by all mobile broadband providers *combined*.

And just this week, I teed up two notable spectrum items for consideration at the FCC's upcoming meeting on October 23.

Yesterday, you heard from Commissioner O'Rielly about our 3.5 GHz proposal, so I won't go into too much detail on that. I would simply say that this reflects the Commission's aim of freeing up mid-band spectrum for 5G and other flexible uses. This order makes targeted changes to our rules to promote investment and innovation in this important band. For example, by allowing providers to renew 3.5 GHz licenses, we'll substantially increase their incentives to develop 5G services using this spectrum.

It's also important to note that our spectrum policy embraces both licensed and unlicensed spectrum. Last year, the FCC started to explore how to expand unlicensed use in the 6 GHz band. Based on our study, I've proposed new rules allowing unlicensed devices to use this band. My proposal would promote efficient use of spectrum that may otherwise not be used at all—and it could make over 1 gigahertz of new unlicensed spectrum available.

Here's why this matters: this massive amount of spectrum could enable faster Wi-Fi connections, which benefits everyone with a smartphone or other mobile device. And it would substantially expand the reach of Internet access providers that use unlicensed spectrum, like small, competitive fixed wireless companies. It would also supplement mobile broadband companies' licensed holdings for 5G, helping them offload traffic and ease congestion. We hope to do all this while fully protecting existing and future licensed operations from harmful interference. (I see that there's a session this afternoon on the prospects for unlicensed use of the 6 GHz band, which couldn't be more timely.)

Rounding out the spectrum piece of our 5G FAST plan, I would note that we're working hard with other federal agencies to free up spectrum currently held by the federal government (which for some time has held a majority of lower-band airwaves).

Infrastructure is the second major component of our 5G FAST plan. As I said earlier, Matthew Berry will cover this topic this afternoon. I'll simply say that we cannot let today's red tape strangle the 5G future.

Completing the three-legged stool of our 5G FAST plan is modernizing regulations. The FCC is revising or repealing outdated rules to promote investment in the wired backbone of 5G networks. For instance, when I became Chairman, FCC regulations made it too hard for carriers to transition from the

fading copper networks of the past to the fiber networks of tomorrow. So we've updated those rules to help companies focus on fiber deployment. We also recognize that carrying 5G traffic to and from small cells will require companies to string fiber lines on utility poles. We're making it cheaper and easier to do this by enacting a bold policy called "one-touch make ready."

Speaking of replacing outdated regulations, we also overturned the Obama Administration's decision to heavily regulate the Internet like a slow-moving utility under rules developed in the 1930s. We've replaced it with a consistent national policy for broadband providers that protects the free and open Internet and encourages infrastructure investment.

Coming so close on the heels of the White House summit, I thought it would be appropriate to focus my remarks on 5G, but I want to be perfectly clear that we are also deeply committed to creating opportunities for broadcasting and the satellite industries. And after all, the topic for our session this morning is delivering connectivity for future network systems.

On broadcasting, just as we want to unleash the next-generation of wireless networks, I want to encourage the development of the next-generation broadcast TV, which is the subject of the session following my speech. Last year, the FCC authorized the ATSC 3.0 TV standard, which marries the best of broadcasting—that one-to-many architecture we've enjoyed for many years—with the Internet. By allowing use of this standard on a voluntary, market-driven basis, we've opened the door to a substantially improved, free, over-the-air television broadcast service and fiercer competition in the video marketplace.

This August, I had a chance to visit a Univision station in Phoenix where I got a first-hand look at the ways broadcasters are beginning to take advantage of this new standard. I saw demonstrations of how ATSC 3.0 enables immersive audio, highly localized information, including during emergencies, and better accessibility for those with disabilities. In addition, they can tailor the broadcast to the device you're using, whether it's a big screen or a tiny mobile device. I left this visit excited for consumers and the benefits they will be able to enjoy in the time to come.

Some demanded that we strangle Next Gen TV in its infancy with extensive regulation. Fortunately, the FCC rejected this attempt to block progress.

Regarding satellite, we're not only seeing dramatic changes in satellites' capabilities; we're also witnessing a sea change in the economics of their deployment thanks to re-useable rockets. This has created a moment of tremendous promise for this industry.

To unlock these possibilities, the FCC is approving a new generation of low-earth orbit satellites to be deployed by the likes of Space X and OneWeb—satellites that could beam internet access back to Earth at a speed and price point comparable to a terrestrial provider.

Last month, we streamlined our rules for what we call Earth Stations in Motion—think of a satellite receiver that enables Wi-Fi on a plane or a school bus. By eliminating some regulatory burdens and adding frequencies where these receivers can operate, we can enable a fast-growing segment of the satellite industry to innovate and invest in new technologies.

Regarding spectrum, we preserved the 48.2-50.2 GHz and 40-42 GHz bands for satellite use. And we also provided some additional flexibility in our earth station siting rules for the 28 GHz and 39 GHz bands. The Commission is currently exploring the potential for new uses of mid-band spectrum in the C band (3.7-4.2 GHz). I'd like to thank satellite companies for coming to the table with innovative ideas that open the door to freeing up additional spectrum for terrestrial use. I appreciate their willingness to engage constructively about the band's future and look forward to exploring these ideas in the months to come.

Let me close where I began. At the White House 5G summit, after a series of speeches in the morning, we broke into working groups. For the purposes of this audience, it might have been best if I'd

been assigned to the working group on spectrum. But I believe that my breakout session on the possible use cases and applications of 5G was equally relevant. Much of this two-day forum is focused on *what* spectrum policies we should adopt. The breakout session last Friday reminds us *why* all of this matters.

It matters because of the businesses that will be able to grow and the new jobs that will create.

It matters because it can unleash smart transportation networks that can reduce traffic, prevent deadly accidents, and limit pollution.

It matters because of the lives that can be saved and the many more that can be improved with telemedicine.

It matters because of the yet-to-be imagined innovations that will enrich our lives.

That's why we aim to build consensus around smart spectrum management practices for the future. Because this isn't just about policy; it's about unlocking possibilities for a better future.

Let it rip.