

**REMARKS OF FCC CHAIRMAN AJIT PAI
AT THE 7th CONGRESO LATINOAMERICANO DE TELECOMUNICACIONES
CÓRDOBA, ARGENTINA
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¡Buenas tardes! Thank you to our hosts for inviting me to join you here today.

It's great to be with you, and it's great to be back in Argentina. I've had the pleasure of visiting this country twice before as a tourist, and have seen the beauty of Iguazú and Mendoza, Bariloche and Ushuaia, El Calafate and Buenos Aires. But this is a trip of firsts.

This is my first time in Córdoba. This is the first time I'm in Argentina as Chairman of the FCC. And it is also the first time an FCC Chairman has attended the CLT. After my speech this afternoon, I sincerely hope it is not the last.

I actually thought about delivering my remarks in Spanish, which I did at this year's GSMA meeting in Barcelona, but nobody should have to listen to my Spanish when I'm jetlagged.

Instead, I thought I would open my remarks with a quote from the world's most famous Argentine. No, I'm not talking about Lionel Messi. Especially after what happened yesterday. (Too soon?) I'm talking about Pope Francis.

Last month, the Pope said the following, which is fitting for this occasion: "The Holy Spirit calls all of us and helps us discover the beauty of being together and journeying together, each in his or her own language and tradition, but happy to be amongst brothers and sisters."

It's not just what Pope Francis said that struck me as relevant to this moment, but where he said it. It was on Twitter.

This message reflects the two themes I'd like to emphasize in my remarks today: one, the importance of harnessing technology to solve our common challenges, and, two, the importance of regional collaboration to unlock those solutions.

Let me start with point one. It's become clichéd to say that the Internet has changed everything. But I can think of no better proof of this than the fact that the Vatican has a digital media strategy. And I didn't even mention that earlier this year, the Pope introduced a new mobile app called Click to Pray.

Promoting digital technologies is not a minor issue. It is essential to every issue we face as policymakers and citizens. It's essential to economic growth and job creation. It's essential to healthcare and education. It's essential to transportation and agriculture. And, yes, it's essential to growing and sustaining communities of faith.

This raises two important jobs for those of us in this room. First, we need to make sure that everyone in the Americas has access to what I like to call digital opportunity. As others have surely noted during this conference, around 45% of Latin Americans are still offline. And in the United States, we have our own challenges with the digital divide. For example, more than 21 million Americans, overwhelmingly in rural areas, still lack access to high-speed fixed broadband service.

As Pope Francis said, "How wonderful would it be if the growth of scientific and technological innovation would come along with more equality and social inclusion." I agree, and that's why we need to make sure that the digital revolution empowers those who are struggling to get ahead or simply catch up.

Our second job is unleashing next-generation technologies. We want everyone to have access to the Internet because of the life-changing services and applications it enables. And the next big game-changer on the horizon is 5G, the fifth generation of wireless technology.

As you all know, 5G will effectively remove speed, capacity, and latency as limitations on wireless innovation. 5G can unlock a world in which, for example, wireless sensors monitor your health and transmit data to your doctor before problems become emergencies. It can enable smart transportation networks that communicate with connected cars that communicate with each other—reducing traffic, preventing accidents, limiting pollution, and speeding emergency response times. And it will enable so many other possibilities.

How fast these possibilities are realized, or if they are realized at all, will depend in part on whether we enable it to happen.

To realize this potential, the FCC has developed and is executing what we call the 5G FAST plan. It has three parts: freeing up more spectrum for the commercial marketplace, promoting wireless infrastructure deployment, and modernizing our regulations to promote more fiber deployment. I'll briefly discuss each.

First, on spectrum, we have been very active this year in making more low-, mid-, and high-band spectrum available for 5G. In January, we finished an auction of spectrum in the 28 GHz band, awarding nearly 3,000 licenses. In May, we concluded an auction of 700 megahertz of spectrum in the 24 GHz band.

And next week, the FCC will take two more important steps on spectrum to promote 5G. First, we will vote on the final procedures 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. In total, our auctions this year will free up for the commercial marketplace almost 5 gigahertz of spectrum for flexible use. That's more spectrum than is currently used for mobile broadband by all mobile broadband providers in the United States combined. The Commission will also vote next week on opening up mid-band spectrum in the 2.5 GHz band. This is the single largest contiguous band of spectrum below 3 gigahertz in the United States, so this is a big opportunity for 5G.

Also, on the mid-band spectrum 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 in that band 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. We're also continuing to study ways to make more efficient use of spectrum in the 900 MHz range. Last year, the FCC launched a fresh inquiry to explore new uses for this band, and based on what we've learned, the FCC proposed to make a segment of the 900 MHz band available for broadband, which will improve the user experience.

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—a huge 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 aren't subject to the same regulatory burdens as 60-meter towers. And that's why we took action to ensure that American cities couldn't delay small-cell deployment. We set a reasonable shot clock for cities to rule on small-cell siting applications and reasonable limits on siting fees. These 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.

Finally, fiber—the third part of the 5G FAST plan. 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 we've modernized our rules to encourage the deployment of optical fiber for backhaul. We've made 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.

Here, too, our policies are working. In 2018, fiber was deployed to more new homes in the United States than any year ever. And earlier this month, we learned that investment in United States broadband networks was up about \$3 billion in 2018, the second consecutive annual increase. That's notable since network investment fell in 2015 and 2016.

That is a sketch of what we are doing in the United States. But I'd now like to shift to what we can do together—how regional collaboration can help people across the Americas realize the promise of the digital age.

When we talk about regional collaboration, we're talking partly about events like this, where we can come together to build relationships and share best practices.

Over the past two-and-a-half years, I have enjoyed learning from and becoming friends with colleagues throughout this hemisphere. Whether it's meeting with my Central American peers at a COMTELCA gathering, connecting with my Caribbean counterparts at CANTO, or seeing you at international gatherings like GSMA in Barcelona, I always leave these talks invigorated and enlightened.

And now, the World Radiocommunication Conference is only four months away. WRC-19 is important to all of us in this room who are working to increase connectivity in our countries and deliver the benefits of new technologies to our citizens. It offers a great opportunity for our region to advance our shared goals and strategies. By moving forward together toward international radio spectrum allocation and harmonization for next-generation terrestrial mobile and satellite services, we can help ensure that 5G, next-generation satellite services, and other emerging technologies soon become a reality.

To seize this opportunity, it is important that we work together, guided by our shared interests.

As we head toward WRC-19, I'm pleased to say that, thanks to many of the people in this room, we are in a stronger position to make sure the concerns of our region are respected on the international stage. Last year, at the ITU Plenipotentiary Conference, we ended the long CITES drought in regional representation among elected officials by placing not one, but two wonderful candidates from the Americas. The region is in good hands with Uruguay's Mario Maniewicz as Director of the Radiocommunication Bureau and Doreen Bogdan-Martin from the United States as Director of the Development Bureau. Through unity of purpose, CITES has become a vital voice for the Americas.

Carrying that cooperation through at WRC-19 will be critical to getting access to the spectrum we all need to advance new technologies. I know we're off to a great start, with twenty-four Inter-American Proposals already agreed to, which is a record number at this stage in the process.

Our priorities for the upcoming WRC in Egypt track the same priorities we have at home and for our region, and are the same ones I highlighted earlier in my remarks: closing the digital divide and promoting 5G and other next-generation innovations.

Our guiding principles as we approach WRC-19 are three-fold.

First, we need to create a **flexible** regulatory framework that allows for continued growth of a multi-trillion-dollar industry;

Second, we need to enable regional and global spectrum **harmonization** opportunities for all services, including broadcasting, Wi-Fi, mobile technologies, and satellites, to create international economies of scale, roaming, and interoperability, lowering prices for manufacturers and consumers;

And third, we should ensure reasonable **protections** for incumbent users of the spectrum, so they can continue to operate and have enough certainty to invest in new technologies and expand coverage and deployment.

If we establish a flexible framework, if we harmonize spectrum policies, if we set reasonable protections, we will drive technological innovation and investment throughout our region. All of us will be better off.

Now, I'll discuss some of the specific issues the United States will be focusing on at WRC-19.

The FCC does not pick winners and losers in our domestic marketplace, and we carry that same philosophy forward internationally. We believe our domestic experience shows that we can and should be open to the possibility of a more flexible approach at WRC-19. Global harmonization no longer requires every region to have identical spectrum allocations; instead, it can be facilitated using radio tuning ranges. These tuning ranges allow manufacturers to develop equipment that can operate across multiple bands within a contiguous range, while allowing regulators the flexibility to manage spectrum resources according to their unique domestic requirements.

The United States will be supporting the 24 GHz, 40 GHz, and 48 GHz tuning ranges at WRC-19. By placing an International Mobile Telecommunications (IMT) identification in these ranges, it does not pre-empt or prioritize this spectrum for 5G over other services like satellite. It simply gives governments the flexibility to make those decisions themselves. This is exactly what the FCC and other regulators have done domestically, giving some portions to satellite while other portions go to mobile. In addition, compared to low-band spectrum like 700 MHz, propagation characteristics for millimeter wave spectrum make sharing much easier, so in most cases, international cross-border protections are largely unnecessary.

In the case of science satellites, it is important to protect their operations from harmful interference. But we also must avoid overprotecting them and then unnecessarily precluding new technologies from operating. For example, I am hopeful that our region can work together at CITEL this August in Ottawa to develop a protection limit that will make the most effective use of the 24 GHz band for 5G, while still protecting passive sensors. Thankfully, the recent trend from other regions is encouraging, with the Arab Spectrum Management Group and the African Telecommunication Union endorsing reasonable limits. And I believe the facts and physics make a compelling case for our region to arrive at even less restrictive limits. At the FCC, we base our spectrum rules on sound engineering and efficient use of the airwaves, not unverified claims based on politics. That approach will help the 24 GHz band become a launch pad for the widespread deployment of 5G.

Additionally, an IMT designation in the 50 GHz band, with adequate protections of incumbent services, can help make sure our region provides a pathway for the future growth of mobile services. The band potentially represents over two gigahertz of contiguous spectrum that could be used to provide 5G services. In the United States, there are no co-channel incumbent operations that need to be accommodated or relocated. And I would also stress that we need to have the future in mind: as a region, or individually, we may not need that band immediately. But given the growth trajectories of mobile data services, we would be wise to prepare for the future.

Another key focus for the WRC will be expanding the availability of Wi-Fi. This unlicensed innovation helps to bridge the digital divide and make it easier for people to get online. To push more unlicensed spectrum into the marketplace, the United States is looking to harmonize our domestic rules internationally by promoting higher-powered outdoor use in the 5150-5250 MHz band.

Moving from the land to the sky: new satellite technologies have tremendous potential to connect the hardest-to-serve areas. Some satellite companies are already helping address this challenge, delivering affordable, high-throughput connectivity to rural and remote areas throughout the region. They will also play a part in the 5G ecosystem through backhaul, residential broadband, and IoT solutions. We are also especially supportive of non-geostationary satellite orbit (NGSO) innovation. NGSO entrepreneurs such as OneWeb, SpaceX, Boeing, Kepler, O3B, and others are pioneering high-speed, low-latency global broadband solutions. We will have an opportunity at WRC-19 under Agenda Item 1.6

to consider regulatory improvements to permit expanded use by NGSO systems in the frequency bands 37.5-39.5 GHz, 39.5-42.5 GHz, 47.2-50.2 GHz and 50.4-51.4 GHz for these satellite systems.

I'll close my remarks with this. In my meetings with regulators and spectrum managers from this region and throughout the world, I have come to appreciate how every country faces particular difficulties. Every nation has different priorities. Not every national spectrum table is the same.

But as a region, we have common challenges and common interests. And that means that if we stand together, we can rise together. CITEL and WRC-19 give us a chance to work jointly toward solutions for 5G, increased Wi-Fi usage, and connectivity through large satellite constellations. Our regional prosperity depends upon our regional unity. We see each of the agenda items for WRC-19 as being part of a comprehensive, multi-technology approach to increasing the spectrum available for connecting the unconnected and delivering more advanced services for our citizens.

That brings me back to the words of Pope Francis. There truly is beauty in the way that so many of us have journeyed so far to come together in the name of harnessing technology to lift up others. We may speak different languages and cherish different traditions, but we also have shared values and mutual respect. We are brothers and sisters. Let's journey together to build a brighter digital future.