

**REMARKS OF FCC CHIEF OF STAFF MATTHEW BERRY
AT THE CANTO 2019 CONFERENCE**

PORT OF SPAIN, TRINIDAD AND TOBAGO

JULY 22, 2019

Good afternoon. I would like to thank CANTO's Secretary General Teresa Wankin and the entire CANTO team for the kind invitation to speak at your 35th Annual Conference and Trade Exhibition. It's an honor and privilege to be here representing the FCC. CANTO's annual conference comes highly recommended. Chairman Pai had a great time with many of you in Panama last year and strongly encouraged me to attend. Moreover, as a rule of thumb, it's generally a wise decision to accept an invitation to visit the Caribbean.

I would also like to thank CANTO's former Chairman Julian Wilkins for all of his great collaboration with the FCC over the years. I wish David Cox all the best as CANTO's new Chairman, and we look forward to continuing the FCC's great relationship with CANTO under his leadership.

Thank you as well to our hosts from Trinidad and Tobago. You've been so gracious that I almost forgive you for preventing the United States from qualifying for the 2018 World Cup.

Beyond sports, our host nation has a rich tradition of writers and poets. Two winners of the Nobel Prize in Literature have called Trinidad home. And the world's two most famous female rappers both have local roots. That's right. Nicki Minaj was born right here in Port of Spain, and Cardi B's mother is Trinidadian. In fact, somebody suggested that I pepper my speech with lyrics from these boundary-pushing artists. I did some digging and found that Cardi B even has two songs with a telecom connection: "Thru Your Phone" and "Ring". But then I looked at those songs' lyrics and quickly came to the conclusion that they wouldn't be the best choice for someone who works for an agency with the responsibility for policing indecent language over the broadcast airwaves.

As a result, I've instead chosen the more prudent course of highlighting the words of Nobel Laureate V.S. Naipaul, whose many honors include the Trinity Cross, which used to be Trinidad and Tobago's highest civilian award.

Naipaul once said, "We make ourselves according to the ideas we have of our possibilities." Given this conference's theme of transitioning to a digital region, I think that Naipaul's words are a great stepping-off point. The first step in building a brighter digital future for the region is to dream big. We need a bold vision of what is possible, and CANTO is doing a great job of laying out that vision. I look at the agenda for this conference, and there are sessions on promoting 5G, artificial intelligence, and machine learning across the region. There are discussions on creating safer communities where our citizens are protected from risks ranging from natural disasters to cyberattacks. And there are workshops on how we can close the digital divide and build a digital future whose benefits extend to everyone, everywhere.

Chairman Pai and all of us at the FCC share these goals, and I'd like to spend my time today talking about the Commission's efforts to advance them at home and across the region.

Let's start with 5G. This audience is already familiar with the potential of 5G to spur economic growth, job creation, and other advances that will improve our quality of life, so I'm just going to move directly to the FCC's work to spur the next generation of wireless connectivity.

The FCC has developed and is executing what we call the 5G FAST plan. In the United States, our approach to 5G is private-sector driven and private-sector led, so the 5G FAST plan is a market-based strategy. 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. Each of these steps is critical to bringing the benefits of 5G to the American people.

On spectrum, 5G networks will require a combination of high-, mid-, and low-band spectrum. And that's why we're taking an aggressive, all-of-the-above approach when it comes to spectrum policy. Looking high, in January, we finished an auction of 850 megahertz of spectrum in the 28 GHz band. In May, we concluded an auction of 700 megahertz of spectrum in the 24 GHz band. And just days ago, the FCC approved 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.

We're also opening up more mid-band spectrum for 5G. The 2.5 GHz band is the single largest band of contiguous spectrum below 3 GHz in the United States, but due to overly restrictive rules adopted decades ago, much of this spectrum has not been put to use. Earlier this month, the Commission voted to adopt flexible new rules for these airwaves, and we intend to auction the unused portions of the band next year.

We will also auction 70 MHz of spectrum in the 3.5 GHz band next year. And later this summer, we hope to approve the first commercial deployments in that band. We're also working to free up spectrum for 5G in the 3.7-4.2 GHz band, what we call the C-band. This is a complicated task given the need to address incumbent uses of the band, but we're optimistic that we will be able to produce results this fall.

And finally, with respect to low-band spectrum, the repack of the 600 MHz band following our broadcast television incentive auction has been going well. We're on schedule; carriers are already deploying wireless service in the band. And next year, we will finish moving broadcast television stations to their new frequencies.

Turning to infrastructure, part two of the 5G FAST plan, we're cutting regulatory red tape to ease the deployment of the hundreds of thousands of new small cells that will be a part of our 5G networks. We reformed our historic preservation and environmental regulations so that small cells the size of a pizza box don't have to jump through the same regulatory hoops as 60-meter towers. We also set a reasonable shot clock for cities to rule on small-cell siting applications and reasonable limits on the siting fees cities can charge. I'm pleased to report that 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.

Moving to the third part of the 5G FAST plan, we've modernized our rules to encourage the deployment of fiber. That's because 5G isn't just about wireless; we also need robust fiber networks to carry traffic once it comes off the airwaves.

So we've streamlined our rules to make it easier for carriers to transition from the copper networks of yesterday to the fiber networks of tomorrow. We've instituted a new policy called one-touch-make-ready to make it faster and cheaper for competitive providers to attach fiber to utility poles. And yes, 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. Average fixed broadband speeds are up substantially. And investment in U.S. broadband networks was up about \$3 billion in 2018, the second consecutive annual increase.

That's a snapshot of what we are doing in the United States to promote wireless innovation. But I want to talk for a minute about what we can do together to promote wireless deployment regionally—in particular, I want to talk about spectrum harmonization.

The World Radiocommunication Conference in Egypt is only 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, we can help ensure that 5G, next-generation satellite services, and other emerging technologies soon become a reality. With the rapid pace of technological change, we can't afford to wait for another WRC cycle for services to be introduced in our region. Even if we're not all ready to immediately deploy each and every next generation technology, we should all plan for their eventual introduction to our citizens.

And in this fast-paced technological revolution, we are now afforded opportunities for global harmonization that no longer require all regions to have identical spectrum allocations. Instead, harmonization can now be facilitated through technological innovations such as radio tuning ranges. Tuning ranges allow manufacturers to develop equipment that can operate across multiple bands within a contiguous range while giving regulators flexibility to manage spectrum resources to meet domestic requirements. This allows for different services and different use-cases in different countries.

Importantly, tuning ranges can allow for regional, and even national, differences, while still achieving the benefits of economies of scale and global roaming as well as securing the interference protection granted by the Radio Regulations. This is the type of harmonization we intend to support regionally and, ultimately, globally at the WRC-19.

So, as we approach this year's World Radiocommunication Conference, the FCC has three guiding principles.

First, we need to create a flexible regulatory framework that allows for continued growth of a multi-trillion-dollar global ICT industry that will benefit all of our citizens.

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 alike.

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, and if we set reasonable protections, we will collectively drive technological innovation and investment throughout our region. All of us will be better off.

Another benefit of this approach is improved public safety. Our region is all-too familiar with natural disasters. When a hurricane strikes, countries from across the region often mobilize resources to assist in the recovery effort. In these situations, you want the handsets and equipment of the visiting support teams to be interoperable with local networks. Harmonization makes that possible.

This is just one example of how our countries can work closely together to promote public safety. We should learn from our experiences and develop best practices so that we're all better prepared and more effective in responding to future disasters. We should all look at what has worked in the past and how we can improve service availability and restoration. And we need to engage stakeholders, including the private sector and the public safety community. That's what the U.S.-Caribbean Resilience Partnership that launched earlier this year is all about, and the FCC looks forward to working with the countries in this region on this important project.

In the digital age, natural disasters aren't the only major threat to our safety and security that we need to worry about. As more and more aspects of our economy and daily lives move online, being safe and secure requires safe and secure networks. This concern is particularly acute while we are in the early stages of developing and deploying 5G networks.

As Chairman Pai has said consistently, 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. Earlier this year, the United States joined with more than thirty countries in Prague at a 5G security conference and agreed to a set of principles for securing next-generation wireless networks called the Prague Proposals. And we hope that additional countries will give these principles serious consideration. The more that the United States and our regional allies can work together and make security decisions based on shared principles, the safer that our 5G networks—and all of our networks—will be.

The last subject I'd like to discuss is one Chairman Pai addressed in his CANTO keynote last year, and which he's been talking about since his first day leading the agency: closing the digital divide.

Like 5G, this is another subject where this audience doesn't need to hear from me why this is important. So let me just get to the FCC's latest activities.

At the Commission, we believe the best way to make sure every American has better, faster, and cheaper Internet access is to set a market-based regulatory framework that promotes competition and increases network investment.

To make it as appealing as possible for private companies to raise the capital and hire the crews to deploy networks to unserved and underserved areas, we've moved wherever we can to remove barriers to broadband buildout.

And to promote competition and innovation that could transform the marketplace, the FCC has approved applications from companies, like OneWeb and SpaceX, that want to send thousands of satellites into low-Earth orbit to provide high-speed Internet access. These new networks hold the potential for much faster and more reliable satellite broadband services and could help us reach our hardest-to-serve areas.

But we recognize that currently there are some places, largely sparsely populated rural areas, where the market incentives for network buildout don't exist. That's just as true in the United States as it is in the Caribbean. The FCC's primary tool for connecting these hardest-to-serve areas has been our universal service programs. Under Chairman Pai's leadership, the Commission has advanced a number of groundbreaking reforms to improve the effectiveness and efficiency of these programs.

For example, last year, we allocated about \$1.5 billion to connect over 713,000 unserved rural homes and businesses nationwide using a reverse auction.

The outcome of the auction was a tremendous success. We distributed funding much more efficiently: thanks in part to intermodal, competitive bidding, we saved \$3.5 billion from the \$5 billion price we initially thought would be required to connect these unserved areas. And consumers will be getting high-quality broadband—99.7% of the winning bids are to provide consumers with service of at least 25/3 Mbps, more than half of consumers will receive at least 100/10 Mbps, and many will have access to gigabit service.

Next week, we will start the process of setting up a \$20.4 billion broadband expansion program called the Rural Digital Opportunity Fund. Applying lessons learned from last year's reverse auction, this program will spur the deployment of high-speed broadband networks across more of rural America over the next decade, bringing greater economic opportunities to America's heartland. Service providers that win funding in the reverse auction will build infrastructure and provide up to gigabit-speed broadband in the parts of the country most in need of connectivity. This new initiative will be the FCC's single biggest step yet to close the digital divide and will connect up to four million rural homes and small businesses.

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To close, I'd like to return to the words of Nobel Prize winner V.S. Naipaul. Naipaul said, "The world is always in movement." There are few areas where that is truer than communications technology. So as the communications marketplace changes, regulators must keep up. We must modernize our rules to reflect the world as it is, not the world as it was. That's what we're trying to do at the FCC. And that

approach can help unlock the possibilities of the digital age for the people of the Caribbean and hasten the transition of the Caribbean to a digital region.

Thank you.