

**REMARKS OF
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“LEADERSHIP FOR FUTURE CONNECTIVITY”
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Good afternoon! I am so happy to join you for this session on Leadership for Future Connectivity. Speaking of leadership, I want to thank First Vice President and Minister of Economic Affairs and Digital Transformation Nadia María Calviño for joining us here today.

Madame Vice President, last year you gave a speech in which you declared, “I will never again be in a photo in which I am the only woman. I will never again take part in a debate in which I am the only woman.”

Well, today you keep your promise. Because we are lucky to be joined here by so many distinguished women leading in technology. It is my privilege to recognize Assistant Director-General Gabriela Ramos and Minister Aurelie Adam-Soule Zoumarou. And of course, my good friend Doreen Bogdan-Martin, the first woman to be elected as Secretary-General of the United Nations’ International Telecommunication Union. That’s really something—and I know—because I am the first woman confirmed to lead the United States Federal Communications Commission.

Now leaders—they deal in hope. And so does technology. But it is often in crisis that we define both.

With that in mind, I want to acknowledge what the last year has meant for the people of Ukraine. Our hearts are with them and Ukrainian Commissioner Liliia Malon, who is here today. I also want to acknowledge the tragic situation that is unfolding in Turkey and Syria. It is a reminder that Mother Nature’s wrath is powerful. That earthquakes, hurricanes, and floods tear apart our lives. But technology can help us reconnect and rebuild. And in Turkey and Syria, we see next-generation wireless technologies answering that call. Drones using wireless networks are providing relief organizations a better view of what has happened and where help is needed. Microwave radar technology has assisted rescuers searching for those hidden behind piles of debris by sensing their heartbeats. Satellite mapping is making it possible to establish relief camps and move resources around the affected areas.

The connections that are powering these efforts are part of our new world where we do not just expect always-on connectivity, we require it. Not just in tragedy, but in every aspect of everyday life. And I believe making this connectivity available to everyone, everywhere is the infrastructure challenge of our day.

This challenge is bigger than phones. Because if we do this right, our phones will be the least interesting thing about our wireless future. We are fast heading to a world where next-generation wireless networks connect everyone and everything around us. They will open up possibilities for communications that we cannot even fully imagine today. By exponentially

increasing the connections between people and things, this technology could become an input in everything we do—improving agriculture, education, healthcare, energy, transportation, and more. The data we derive from all of these connections is powerful. Because it has the capacity to inform machine learning, artificial intelligence, and the next generation of innovation around the globe.

So get ready. Because the opportunities are big. But the path to this always-on, always-connected future that reaches everyone, everywhere is going to require many small steps. So today, I would like to share with you three things we are doing at the Federal Communications Commission right now to help get us there.

First, spectrum. This is the lifeblood of wireless communications. Making smart choices about its distribution is essential—every step of the way. When I took the reins at the agency, we made a fast pivot to focus on mid-band airwaves. This is the spectrum that has the right mix of coverage and capacity that is essential for the widespread deployment of 5G service. So we held auctions in the 3.45 GHz band and the 2.5 GHz band. Together, these bands took our 5G networks to higher speeds. They also fostered deployment beyond our densest cities, making them available to millions of people across the country. In other words, by focusing on mid-band spectrum, we made real progress in our effort to bring faster 5G to everyone, everywhere in the United States. To keep it going, we are now exploring making 550 megahertz of prime mid-band spectrum available in the 12.7-13.25 GHz band.

Second, digital equity. If we want to reach everyone, everywhere we need digital equity policies that help us do it. Because we believe we need to make sure every community has access to the technology necessary for full participation in society, democracy, and the economy. To help make sure this is so, we have embarked on a big project at the Federal Communications Commission. We are mapping where broadband and wireless networks are—and are not—all across the country. We believe that armed with this level of granular coverage data we will better understand those communities that are at greatest risk of being left behind. But more importantly, we will develop the tools to fix it.

One of those tools we recently developed is the Affordable Connectivity Program. We decided that closing the digital divide and fostering digital equity will take more than just networks. It will take addressing cost. This program does just that. It is our largest-ever broadband affordability effort. It provides low-income households nationwide with a discount of up to \$30 a month toward high-speed internet service—and up to \$75 a month on Tribal lands. This program now supports broadband service in 16 million households in the United States. Those are households that may be struggling to pay for gas or groceries—but now we make sure that every one of them can get online and stay online. Because those connections matter—they help with jobs, healthcare, school, and so much more.

Third, and finally, innovation. This is where it gets interesting. This is where we really chart a course to that not-that-far-off future I spoke about a few minutes ago.

Let's start with some numbers. Right now, there are more than 5 billion mobile phone users across the globe. But some studies suggest that, at any given moment, 15 percent of them are not connected.

This will not surprise anyone here. All of us know that connecting everyone, everywhere is a hard task. There are remote areas where our networks do not reach and rural places where signals are scarce. This is true in so many places, including the United States. Then remember that more than 70 percent of the Earth is covered by the ocean—also areas where coverage from traditional wireless networks is not generally available. These gaps in coverage have big consequences—especially for safety.

Let me illustrate this with a story. Imagine for a moment you are no longer in Spain, but in the United States—in the Angeles National Forest in California. It is nestled between the San Gabriel Mountains and the Sierra Pelona Mountains. That is just north of Los Angeles, and the area is a retreat from the hustle and bustle of the city.

The landscapes here are pretty amazing, but the topography makes it difficult to get a consistent wireless signal. Back in December, a couple was traveling in this area and their car did a dive off the road. In fact, it fell 300 feet from the Angeles Forest Highway. This is a really remote area. There was no cell service. No one would have known to look for them. Plus, this is the kind of environment that—beautiful as it is—gets really treacherous at night, when the temperatures drop to dangerous levels.

Now this story could have happened in lots of places. And it could have ended for this couple right there, but it did not. They survived, with some grit, some luck, and some new technology. They had a phone that had a new feature: the ability to connect directly to satellite signals delivered from space. A help message reached first responders with their exact location. Within 30 minutes, a rescue helicopter was airlifting the couple to a hospital.

What is so striking about this story is that it demonstrates how bringing satellite and terrestrial wireless capabilities together can accomplish what neither network can do on its own. We are starting to see how this kind of direct satellite-to-smartphone communication has moved from sci-fi fantasy to real-world prospect. Because small startups, big operators, handset providers, and even software companies have all announced new plans to connect satellites directly to our devices so that we stay always connected—especially when the unthinkable occurs.

This is really neat. But it is important to remember for now these early space communications projects will not provide high-speed broadband from the stratosphere to our phones. But to start, they could deliver low-bandwidth connectivity suitable for emergency calls and texts in remote settings where terrestrial networks do not reach.

For this innovation to have a chance to deliver at scale—and to deliver with more providers, in more spectrum bands, and with a global footprint—I believe regulators will need to develop frameworks that support its development. After all, not everyone will have all the pieces to make this work. Some business and technology models will require new and different

regulatory approvals before they can get off the ground. There are challenges with access to airwaves, frequencies that are not all globally aligned, possibilities for interference that must be managed, and standards work that could help grow these capabilities. But what is clear is that with the growing interest in the possibilities of convergence of satellite and terrestrial services, an ad-hoc, case-by-case approach to these new ventures is not enough.

So I am proud to announce that, at the Federal Communications Commission, we are getting this effort started. Last week, I proposed a new regulatory framework to support direct satellite-to-smartphone communications. It is designed to facilitate more collaboration between terrestrial mobile network operators and satellite service providers. I believe this is the first effort of its kind anywhere in the world.

Our approach will make it easier for satellite operators collaborating with terrestrial mobile providers to obtain authorization for converged services. We also consider what steps we need to take to protect spectrum rights and avoid harmful interference. By providing clear rules, I believe we can kick start more innovation in the space economy while also expanding wireless coverage in remote, unserved, and underserved areas. We can make mobile dead zones a thing of the past. But even better, we have an opportunity to bring our spectrum policies into the future and think about how we move past the binary choices between mobile spectrum or satellite spectrum. In other words, we can reshape the airwave access debates of old and develop new ways to get more out of our spectrum resources.

That brings me back to where I started. We are working to build a wireless and technology future that is bigger than what we have seen in the past. Where—when we say connect, everyone, everywhere—we truly mean it. Because we are using the mid-band spectrum resources we have today to foster it. Because we are now making digital equity a priority. And because we are looking at our airwaves and the opportunities to combine terrestrial and satellite services in innovative new ways. And if we do these things right, we will be stronger, more connected, and more safe—not just in crisis, but in every aspect of civic and commercial life. So let's not just hope, let's get to it.

Thank you.