

**KEYNOTE REMARKS OF FCC COMMISSIONER BRENDAN CARR**

**AT MOBILE WORLD CONGRESS AMERICAS**

**“LOCAL LEADERSHIP AND THE RACE TO 5G”**

**LOS ANGELES, CALIFORNIA**

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Thank you, Scott, for the kind introduction. It is great to be back with you at Mobile World Congress Americas. This is an exciting time for the country. We are on the cusp of a major upgrade in wireless service with 5G. One that will mean better, faster, and more competitive broadband, to be sure.

But one that will also serve as the catalyst for economic growth, new kinds of jobs, a 21st century education for our kids, and improved access to high-quality, affordable healthcare. Standing here today we can't predict all of the inventions that will be built on America's 5G platform. Who could have imagined the technology we have today because of 4G?

A decade ago, catching a ride across town involved calling a phone number, waiting 20 minutes for a cab to arrive, and paying rates that were inaccessible to many people. Today, we have Lyft, Uber, and Via, or my new favorite way to get to work, electric scooters from Bird, Lime, or JUMP—the ribbing I get from the FCC security guards when they see me rolling down 12th Street is not enough to offset the convenience. But it's close.

A decade ago, seeing a doctor in a pinch meant pleading with an office manager or waiting for hours in an ER. Today, a click of an app lets you livestream a specialist on your smartphone—at a fraction of the cost of in person care.

A decade ago, meeting your future husband or wife required—and I know this is going to sound very 1950s to some of the millennials here, so stay with me—mustering the courage to walk up to them, in person, and, wait for it, engage in a conversation in which you ask him or her out. Today, my staff tell me, a potential loved one can be just a swipe away.

American companies led the way in developing these 4G innovations. But it's not by chance or luck that the United States is the world's tech and innovation hub. We have the strongest wireless economy in the world because we won the race to 4G. No country had faster 4G deployment and more intense investment than we did. Winning the race to 4G added \$100 billion to our GDP. It led to \$125 billion in revenue for U.S. companies that could have gone elsewhere. And it grew wireless-related jobs in the U.S. by 84 percent. That history should remind policymakers at all levels of government exactly what is at stake as we compete to be first to 5G. It is about our economic leadership for the next decade.

The race has started, and there is already good news to report for communities across the country. Two providers have announced that 5G service

will go live this year in about a dozen cities, including right here in LA. The private sector, not the government, is planning to invest more than a quarter-trillion dollars to densify their networks with new small cells, which are the building blocks of 5G. That represents a massive investment in America's infrastructure and jobs, without a penny of new taxes.

But we also can't understate the challenge ahead. Since 2015, China has built 350,000 cell sites as part of its plan to densify networks for 5G. Less than 30,000 were built in the U.S. over that same period. There is no doubt that spectrum is key to 5G, and the U.S. is moving forward aggressively on that front, but spectrum alone is not going to close that gap. We have to be honest about this; we have to recognize and address this infrastructure challenge.

To upgrade our networks—to win the race to 5G—we need to upgrade our rules. Until recently, our approach to infrastructure assumed that every new cell site was a large, 200-foot tower. That meant long and costly reviews. And that makes no sense when 80 percent of all new deployments are going to be small cells—roughly backpack-sized antennas that can attach to existing utility poles. Our antiquated regulatory approach was a bottleneck preventing the U.S. from getting 5G ready.

That's why I am glad Chairman Pai asked me to lead the FCC's efforts on wireless infrastructure. And there's good news to report on this effort. In March, the FCC updated the federal historic and environmental rules that governed the construction of cell sites to account for the limited size and footprint of small cells. With that reform in place, one provider already reports that it's now clearing small cells for construction at roughly six times the pace as before!

And it is not just federal rules that are now seeing updates. Mayors and local leaders recognize that the fees and approval processes that apply to 200-foot towers are not appropriate for the size and scale of new small cell deployments. Over the last two years, they have reduced the fees they charge for reviewing small cells, and they set sensible timelines for permitting.

These forward-looking policies are benefiting their communities already. I was in Indianapolis last week to meet with local leaders. Since enacting Indiana's siting reform last year, wireless providers have built over 1,000 small cells in more than 30 communities across the state. Two of the country's largest wireless providers have announced Indy as a showcase city for 5G, with their next-gen networks going live by year's end.

Indiana's grassroots leaders are able to produce these results while respecting the needs of the state's diverse communities. The City of Fishers, right outside of Indy, is a prosperous, growing community. It's a place where people want to move to raise their families. Fishers is positioning itself to be at the leading edge of the tech economy. The Mayor, Scott Fadness, spearheaded the creation of the Indiana IoT Lab there earlier this year. Mayor Fadness understands the importance of mobile broadband to Fishers, but he also knows that unsightly small cell deployments are not in anyone's interest.

So the Mayor negotiated a provision in the state's small cell bill to preserve the right of municipalities to conduct reasonable aesthetic reviews. Last week, the Mayor showed me the results: dozens of new small cells deployed on street lights to minimize their visual impact. Affordable mobile broadband deployed unobtrusively—that's a win-win for the people of Fishers.

Other leaders around the country are picking up the mantle of reform. In Texas, Governor Abbott told me about his state's small cell legislation. Since enacting their bill, major 5G investments have been announced in Austin, Dallas, Houston, and Waco. Tonight, I'll head to Arizona, where I'll meet with Governor Ducey and a mayor from a community outside of Phoenix. Arizona's small cell legislation is spurring high-tech investment, the creation of a smart city region, and a partnership with Arizona State University to prepare students for next-gen careers.

Despite all of that progress, there still are many communities, especially in rural America, that feel that they may be left behind. They want to see their residents get a fair shot at the new wave of economic opportunity that will come with 5G.

But they worry that the billions of dollars of investment needed to deploy next-gen networks will be consumed by high fees and long delays in big, "must serve" cities. Their elected leaders have called on the FCC to act because they are concerned that, without federal action, they may not see 4G, let alone 5G service. As an industry that seeks to provide coast-to-coast coverage, and as policymakers charged with implementing Congress' vision for nationwide networks, it's imperative that we hear these voices. So I'd like to read from a few of the many letters I've received over the last months.

Duane Ankney is a retired coal miner from Montana with a handlebar mustache that would be the envy of nearly any hipster today. But more relevantly, he's a Member of the Montana State Legislature and now serves as Chairman of the Senate's Energy and Telecommunications Committee. He writes: "Where I see the problem is, that most of investment capital is spent in the larger urban areas. This is primarily due to the high regulatory cost and the cost recovery [that] can be made in those areas. This leaves the rural areas out."

Mary Whisenand, an Iowa commissioner, writes: "With 99 counties in Iowa, we understand the need to streamline the network buildout process so it's not just the big cities that get 5G but also our small towns. If companies are tied up with delays and high fees, it's going to take that much longer for each and every Iowan to see the next generation of connectivity."

Ashton Hayward, the Mayor of Pensacola, Florida, writes: "[E]xcessive and arbitrary fees . . . result[] in nothing more than telecom providers being required to spend limited investment dollars on fees as opposed to spending those limited resources on the type of high-speed infrastructure that is so important in our community."

And the entire board of commissioners from a more rural area in Michigan writes: “Smaller communities such as those located in St. Clair County would benefit by having the [FCC] reduce the costly and unnecessary fees that some larger communities place on small cells as a condition of deployment. These fees, wholly disproportionate to any cost, put communities like ours at an unfair disadvantage. By making small cell deployment less expensive, the FCC will send a clear message that all communities, regardless of size, should share in the benefits of this crucial new technology.”

They’re right. When I think about success—when I think about winning the race to 5G—the finish line is not the moment we see next-gen deployments in New York or San Francisco. Success can only be achieved when all Americans, no matter where they live, have a fair shot at fast, affordable broadband. We at the FCC have studied the ideas championed by local leaders in the 20 states that have passed small cell bills. We learned how removing unnecessary regulatory barriers to deploying small cells directly impacts investment, jobs, education, and families.

Based on that grassroots work, I announced last week the next steps in the FCC’s efforts to bring more broadband to more Americans. Later this month, the FCC will vote on a proposal designed to support small cell deployment. It contains four main ideas.

First, it reaffirms local control over wireless infrastructure decisions where it is most appropriate, while setting a reasonable baseline so that we can promote nationwide 5G deployment. By taking a balanced approach, we show respect for the work of state legislatures and do not disturb nearly any of the provisions in the 20 state small cell bills that have been enacted.

Second, the proposal affirms that local governments may charge wireless providers for the costs associated with reviewing small cell deployment. There will be no subsidizing of broadband deployment by local governments. Providers should bear the costs of building 5G. At the same time, we know that excessive fees slow down next-gen deployments and consume the scarce capital needed to bring broadband to rural and less-affluent communities. So we propose that fees must amount to a reasonable approximation of local governments’ costs.

Third, we tailor the “shot clocks” that have long governed local review of infrastructure deployments to account for the size and scale of small cells. Consistent with many state laws, we determine that local governments should conclude their approval processes within 60 days for small cells being added to existing structures and 90 days when a provider wants to put up a new small cell pole. But we also built in a mechanism to recognize when large numbers of small cell applications could lead to legitimate overload on the permitting system.

Fourth, we preserve local governments’ reasonable aesthetic reviews. We affirm that federal law does not prevent local governments from continuing to apply aesthetic standards so long as they are reasonable, non-discriminatory, and made public in advance.

These are commonsense ideas that come from local leaders. By taking these ideas nationwide, we will have a real impact on jobs and access. The proposal is estimated to cut about \$2 billion in red tape, stimulate \$2.4 billion in additional investment, and create 27,000 jobs. Moreover, by lowering the cost of deploying small cells, this decision will flip the business case for building 5G and next-gen networks in rural and less affluent communities. According to economists, nearly two million more homes will be reached by small cells—and 97% of those will be in rural and suburban communities.

Those are big numbers. Those are reforms that can help cement U.S. leadership in technology over the next decade. But discussions like this can sometimes obscure the impact that policy has on everyday Americans. So I'd like to close by telling you about an extraordinary young woman I met who was empowered by mobile broadband. Her name is Tommi. She's the mom to five kids. Many people have had an easier path in life. Tommi grew up in public housing in Philly. She dropped out of high school after giving birth to her first child. For the next 16 years, she made calls for a debt collection agency, which she described as a "dead end job." Tommi knew that she could do more with her life. So she enrolled in Philadelphia's Orleans Technical College. It was "four years of peanut butter and jelly sandwiches—often made for me by my kids," she said.

Tommi earned a perfect 4.0 GPA. She got a job at the Public Housing Authority, and she just bought her first home. Now she's starting a masters program in mental health so that she can give back to her community.

None of this, Tommi told me, would have been possible without a mobile broadband connection. "Broadband is the backbone of a community—for finding a job, for education," she said. A mobile hotspot that she shared with her neighbors let her finish her homework, which was required to be completed online. A mobile connection enabled her to apply for employment and for admission to school.

The grit and determination shown by Tommi is an inspiration. Meeting her a few months back is an experience that has stuck with me. The challenges she faced would only have been more daunting without the opportunity that a mobile broadband connection enabled.

We want the life-changing opportunities of broadband for all Americans, no matter where they live. We have a chance to help do just that later this month by following the example of local leaders and getting rid of unnecessary barriers to deployment. I look forward to voting on September 26 to put those reforms in place. And I want to assure you that the FCC is committed, not just in words but in action, to winning the race to 5G.

Thank you.