

**REMARKS OF FCC CHAIRMAN AJIT PAI
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Thank you all for coming. I know many of you are excited that it's opening day for the NFL, which is probably also a holiday in Dallas.

Speaking of, my beloved Kansas City Chiefs will be playing tonight. I sometimes refer to the Chiefs as America's Team. And I have to admit that even outside of Dallas, that statement often produces quizzical looks or provokes vigorous disagreement. But tonight, the Chiefs are going up against the New England Patriots. So for at least a few hours, the Chiefs will truly take up the mantle of America's Team. And after tonight's game, other teams, including the Cowboys, can fight over it.

While I'd love to spend my time with you today sharing my thoughts on the upcoming NFL season, for some reason that's not why I was invited here. So instead, I'm going to talk about what the FCC is doing to promote innovation and investment across the Internet ecosystem. But before I do, I need to briefly address Harvey.

While the damage is still being assessed, it seems clear that Harvey will go down as one of the most expensive natural disasters (if not the most) in U.S. history. There have been some estimates that the damage will exceed that caused by Katrina and Sandy *combined*. And of course, dozens of Texans also lost their lives, the cost of which is incalculable.

The FCC has a role to play in the federal government's disaster response efforts. Working closely with the Department of Homeland Security, FEMA, and private communications providers, the FCC monitors the status of communications networks in affected areas, thanks partly to staffers on the ground. We provide information, data, and support to first responders and others wherever possible. And we give special authority to government agencies and private companies who need to use spectrum for relief and recovery efforts.

Two days ago, I had the opportunity to visit Houston to see first-hand what challenges remain and to get a better sense of the damage that was done and the heroic efforts to quickly restore communications. Among other stops, I did an aerial tour of Harris County and the surrounding area, where I saw entire neighborhoods that were still heavily flooded. I visited the Greater Harris County 9-1-1 operations center, where dispatchers whose own houses had been flooded relocated to the facility and worked continuously throughout the storm. And I went to the George R. Brown Convention Center, where I saw hundreds of families, many with young children, taking shelter. Next to their cots, many had all the possessions they had left.

While I was in Houston, I personally saw the tremendous spirit of the people of Texas. In the face of this devastating storm, Texans didn't fold, and they didn't falter. Instead, they banded together to rescue and provide relief to their neighbors. Texans were tough. Texans were compassionate. And Texans were an inspiration to the country. Texans reminded us once again how the worst of tragedies can bring out the best in people. For that, I just want to say, "Thank you."

Of course, as the recovery from Harvey continues here in Texas, the country is confronting a new threat in the form of Hurricane Irma. We at the FCC have been busy this week working with our federal partners to prepare for the storm, and our thoughts and prayers go out to those in Irma's path.

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With that said, let's talk about the Internet.

I saw something on Twitter the other day that I thought did a pretty good job of capturing the Internet's place in our modern economy and society. Noah Smith, a columnist for Bloomberg View, tweeted the following: "15 years ago, the Internet was an escape from the real world. Now, the real world is an escape from the Internet."

This tweet rings true for a reason: because every facet of modern American life is going digital. How we work. How we stay in touch with friends and family. How we shop. How we play. How we entertain ourselves. How we learn. How we stay healthy. How we engage politically. Even the most human of all interactions, how we meet a partner, increasingly happens with the help of digital tools.

What does this all mean from a public policy perspective? Along with security, people primarily look to government leaders to help create the conditions that make it easier for the private sector to deliver economic growth, jobs, and personal opportunity. And to grow our economy, create jobs, and expand opportunity in a world that's gone digital, we need world-leading Internet infrastructure that serves as a platform for innovation and entrepreneurship.

A big reason the United States still leads the global economy is that we are the global leader in broadband-enabled innovation. The five most valuable companies in the world are U.S. firms, all founded by upstarts working out of a garage or dorm room. But when I talk about how digital innovation is key to our economic future, it is important to remember that powerhouse companies in Silicon Valley or the Seattle area are just one part of this story.

Since coming to the FCC, I've made a point of traveling to as many places as possible to get an up-close look at the connectivity challenges local leaders are grappling with and the digital opportunities they are creating. I've made a point of primarily visiting people and places to few people associate with the digital revolution. Since becoming Chairman this year, for example, I've logged over 3,000 miles in rental cars, hitting spots from West Virginia to Wisconsin to Wyoming, not to mention Maryland, Michigan and Minnesota if you want some more alliterative name-checks.

At pretty much every stop along the way, you see the same thing: local leaders, entrepreneurs and workers thinking creatively about ways to harness the power of broadband technology to make sure the economic future for their hometowns will be as rich as their past.

There are few better examples of a community that has revitalized itself than a city I visited two weeks ago: Reno, Nevada. Before I went there, I'll confess that the first thing that popped into my mind when I thought of Reno was Bill Murray and the bowling tournament at the end of the movie *Kingpin*. And not long ago, the Reno of *Kingpin* was looking like the glory days.

Reno was hit worse than most by the Great Recession. In 2009, it was one of the country's foreclosure capitals. Unemployment spiked to 13.4% in 2010, 40% higher than the national average. Home values dropped to half of what they were in 2006.

Reno faced the reality that increased competition meant that gaming jobs would never return to previous levels. So local authorities went all-in on a strategy to lure technology companies. That bet has paid off big time. The lineup of firms expanding operations in and around Reno reads like a who's who of the digital economy: Tesla, Google, Apple, and Amazon. And the start-up community is thriving, with Reno emerging as a hub for drone technology and cloud computing services. Today, Reno's unemployment is below 4%, manufacturing payrolls are up nearly 30% since 2012, and home values are higher than they were before the crash.

Reno has seen success of late. Other places haven't been so lucky; they remain on the wrong side of the digital divide. Recently in Reno, I met with the Superintendent of the Humboldt County School District in rural Nevada, who oversees 11 schools. He explained how students in the county's five rural schools are falling behind their urban peers because they lack the bandwidth to take advantage of the latest digital learning tools. The day before, I was in Flagstaff, Arizona with the leaders of the Navajo

Nation. The Navajo Nation faces a high unemployment rate, and a lack of Internet access makes it hard for many who live there to search for jobs or pursue telework opportunities. Nationwide, 63% of people on rural Tribal lands lack access to fixed high-speed broadband. Overall, 28% of rural Americans couldn't sign up for high-speed home broadband if they wanted to. It just isn't available.

All this raises the question: What should the FCC be doing to promote faster, better, and ubiquitous Internet access?

As I like to say, we have many tools in our toolbox to help expand digital opportunity. The most powerful tool is to establish rules that maximize private investment in high-speed networks.

The iron reality is this: Broadband networks are expensive to build. And they don't have to be built. Capital doesn't have to be spent. Risks don't have to be taken. So the more difficult government makes the business case for deployment, the less likely it is that broadband providers, big and small, will invest the billions of dollars needed to connect consumers.

Too often, unnecessary rules make it more expensive to construct these networks than it needs to be.

In our *Restoring Internet Freedom* proceeding, the FCC is currently examining whether we should change our Internet regulations in order to encourage greater deployment and bring digital opportunity to more Americans. But it's important not to look at that proceeding in isolation. Instead, it is just one part of a comprehensive review of how to encourage the construction of next-generation networks.

We've also proposed to eliminate regulatory barriers to building wireless and wireline infrastructure—such as rules that deter the transition from old, fading copper lines to modern fiber networks. Eliminating these barriers will mean more money being spent building the resilient networks of tomorrow, not maintaining the fading networks of yesterday.

We also want to lower the cost and increase the speed of deployment. This is critical for the rollout of the wireless networks of the future—what we call 5G.

5G promises exponential growth in the Internet of Things. It could enable mobile broadband consumers to download 4K movies in seconds. It could enable cooperative collision avoidance for cars. It could enable remote robotic surgery. And those are just a few of the things we can already foresee. History tells us that there will be transformative 5G applications that we can't yet conceive.

Just to give a sense of timing, all of our major wireless carriers and equipment vendors are already conducting or plan to conduct 5G trials, including here in Dallas. And Ericsson predicts that a quarter of North American mobile subscriptions will be on 5G by 2022.

But here's the critical thing about 5G: it will require massive investments in physical infrastructure. As we move to 5G, network architecture will shift from large, macro-cell towers to densely-deployed small cells, operating at lower power. We are talking about hundreds of thousands, if not millions, of small cells. And those cells are going to need backhaul—that is, the fiber and other connections that carry wireless traffic from cells back into the core of the network.

From a regulatory standpoint, that's a lot of approvals that will have to be given—and a lot of possibilities for delay and higher costs.

The FCC has begun to examine how state and local government processes can affect the speed and cost of infrastructure deployment. We're exploring reforms to those processes. We're also looking at our own regulations and asking how we can minimize costs and delays.

Here's the bottom line: Rules that were designed for 100-foot towers might not make sense for small cells that are the size of a pizza box. And we should remember that innovation isn't limited to the so-called "edge" of networks. Innovation *within* networks is also critical, especially in the mobile space.

To realize the 5G future, we need smart infrastructure, not dumb pipes. And we need to make sure our rules recognize this reality.

Beyond these proposals that are already in motion, we've also established a Broadband Deployment Advisory Committee. It's composed of experts who are focusing on the best ways to promote broadband deployment. One of the group's key tasks is to draft a model code—that is, a deployment-friendly set of rules that any town can use to deliver faster, cheaper, and better broadband for its residents.

In addition to removing bureaucratic red tape, another powerful incentive for investment can be changes to the tax code. Returning to Reno, an important factor in luring so much investment from outside companies is that there are no corporate or inventory taxes in Nevada.

Almost a year ago in Cincinnati, I proposed that Congress should provide tax incentives for ISPs to deploy high-speed broadband services in low-income neighborhoods. We would call them Gigabit Opportunity Zones. And we would offer tax incentives for startups of all kinds to take advantage of these networks and create jobs in these areas. I'm pleased that members of Congress, led by U.S. Senator Shelley Moore Capito of West Virginia and U.S. Representative Doug Collins of Georgia, have introduced the Gigabit Opportunity (GO) Act, which adopts many of these proposals. I'm hopeful that Congress will consider this legislation as part of any infrastructure plan.

But we need a regulatory framework that not only maximizes incentives for investment, but also unleashes innovation.

Entrepreneurs are constantly developing new technologies and services. But too often, they're unable to bring them to market quickly for consumers because outdated rules or regulatory inertia stand in the way.

At the FCC, I've taken action to make sure that we are facilitating, rather than frustrating, innovation. For example, we want to encourage business-model innovation and more options for consumers. That's one reason why earlier this year, we closed the FCC's investigation into free-data offerings—also known as “zero-rating.” Wireless companies offering consumers something for free has proven to be popular, particularly among low-income Americans. And it's made the wireless marketplace more competitive. Going forward, the FCC will seek to promote, not prevent, that kind of innovation.

Thus far, I've spoken about creating a regulatory framework that promotes private investment and innovation. To do that, we have to make sure that the costs of our rules don't outweigh their benefits. For too long, many have been concerned that the FCC has failed to meet that standard—and that it too often failed to even try. The FCC has a top-notch team of economists on staff, but their expertise is typically applied in an ad hoc fashion, and often late in the process.

We are taking a major step to correct that.

This spring, I proposed to establish an Office of Economics and Data. Once created, this Office will provide economic analysis for rulemakings and conduct longer-term research on ways to improve the Commission's policies. The net result will be that economics, and cost-benefit analyses in particular, will be a core part of the FCC's policy work, not an afterthought.

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Let me close by quoting a Dallas entrepreneur who knows a little something about the digital economy: Mark Cuban. Back in 2014, Cuban said, “There is no better platform in the world to start a new business than the Internet in the United States.” Our goal at the FCC is to make sure that this will continue to be the case. Our aspiration is to expand our networks and to unleash digital opportunity for every American. With the right rules, I believe, I know we can maximize investment and innovation across the Internet economy.