

**REMARKS OF COMMISSIONER AJIT PAI
AT PCIA'S 2014 WIRELESS INFRASTRUCTURE SHOW**

ORLANDO, FL

MAY 20, 2014

I want to thank PCIA, and in particular my friend Jonathan Adelstein, for inviting me to speak at the Wireless Infrastructure Show. I had the pleasure of working directly with Jonathan when he was a Commissioner at the FCC. I learned then that Jonathan brings passion, insight, and a broad base of experience to everything he does.

Jonathan and I have very similar backgrounds—we're both from the Midwest, we both worked in the Senate, and we both care deeply about rural America. But there's one area where we part ways. You see, Jonathan is a rather talented musician, a younger Bob Dylan, who's regularly invited to play harmonica with the FCC Band at our yearly holiday parties. I witnessed it up close a couple of years ago, when we did a cover of "Folsom Prison Blues" together. While I like to think I can belt out a few chords . . . let's just say that when folks hear *my* whistle blowing, they hang their heads and cry.

But in all seriousness, I've enjoyed working with Jonathan since he took the helm at PCIA. I want to thank him, his staff, and PCIA's members for the work you do—day in and day out—advocating for, developing, installing, and maintaining the infrastructure that makes the mobile broadband revolution a reality for hundreds of millions of Americans. Getting wireless infrastructure in place takes hard work, a lot of money, and perseverance. Or, as Johnny Cash might say, "gravel in your guts and spit in your eye."

And it's not easy because many people seem to treat infrastructure as an afterthought to the topic that is considered more glamorous: spectrum. If you want to hear about spectrum at the FCC, there's no shortage of debates about how to put spectrum in this or that band to better use. Now, I want to be clear—that's an important challenge, and I'm glad that FCC for the first time in years is making real progress trying to meet it.

But some seem to forget that towers, antennas, backhaul, and other infrastructure are essential. If infrastructure is without a home, like a complete unknown, then spectrum becomes a rolling stone. Indeed, it doesn't matter how much spectrum we make available, consumers won't have wireless service if operators can't deploy wireless infrastructure in a timely manner.

This isn't an academic problem. Deploying more infrastructure is important because we're on the leading edge of a data tsunami. By 2018, U.S. mobile data traffic will increase nearly 8-fold, with outsized growth in mobile video in particular. Video is expected to account for nearly 70% of all mobile traffic by 2018. And there will be billions more wireless connections. By the end of this year alone, there will be more connected mobile devices than people on this planet. The times, they are indeed a-changin'.

The mobile experience itself will change in a big way. Consumers will use the airwaves almost as seamlessly as they breathe the air. I saw a precursor at this year's Consumer Electronics Show, where entrepreneurs were conceiving an Internet of Things made up of connected watches, appliances, and even clothes. Speeds and capacities are going to have to increase significantly to meet these demands.

That's where infrastructure comes in. Carriers are upgrading their networks to support the latest 4G technologies. They're looking to add capacity by densifying their networks and deploying a variety of small-scale technologies, including microcells, picocells, and distributed antenna systems (or DAS).

The icing on the cake? Wireless infrastructure also drives job creation and economic growth. Researchers estimate that over the next four years, industry will invest up to \$36 billion each year in

mobile broadband—if we put the right regulatory framework in place.¹ These investments will generate up to 1.3 million new jobs and increase our nation’s GDP by \$1.2 trillion.

That’s all good news. But it should be old news. What’s holding us back?

As you know all too well, regulations can make it tough to deploy infrastructure—tougher than being a boy named Sue. Byzantine state and local rules often make it impossible to make even minor modifications to wireless facilities.

In some cases, municipalities are applying a one-size-fits-all review process. That means you have to jump through the same hoops whether you’re looking to swap out a 3G antenna for a 4G one or constructing an entirely new 200-foot-tall tower.

And far too often, there’s no endgame. Permitting processes drag on for years. Municipalities charge exorbitant fees that deter necessary upgrades and modifications. Proposals go down, down, down, and the regulatory flames go higher. At the end of the day, the people who suffer are not just companies, but consumers who rely on them.

I saw some of these problems first hand in San Francisco. I was meeting with a group of entrepreneurs who were developing cutting-edge applications for mobile devices—things like instant video optimization and mobile cloud computing.

What I found most striking, and not in a good way, was how they couldn’t get good mobile reception in their own building. Why? Because local regulations made it nearly impossible for any wireless company, big or small, to deploy more towers and other infrastructure in the city. So what did these innovators do? They innovated. They walked up to the roof of their building, and they built a wireless mesh network using . . . chicken wire.

Something has gone wrong with regulation—really wrong—if the best wireless solution for entrepreneurs in San Francisco is the same technology that farmers in my home state of Kansas use to keep wayward birds in the coop.

We’ve all heard the phrase Not In My Back Yard, or NIMBY. Well, this is NIMBYism run amok. Every consumer wants fast, dependable wireless services where he or she lives, works, and plays. But getting those services to work requires *local* infrastructure. This isn’t like nuclear power, where you can supply energy whether you put a plant one or one hundred miles away. For wireless networks to work, infrastructure has to be near the consumer, whether it’s a big tower or a small cell. Ultimately, NIMBYism leads to more dropped calls, less capacity, and less redundancy in cases of emergency.

That’s why one of my priorities since I joined the FCC has been removing barriers to infrastructure investment. So, while some are in the basement, mixing up the medicine, I’m on the pavement, thinking about the government’s regulations. There are just too many of them. That desperately needs to change.

So where can we start? Well, thankfully, Congress has already given the FCC powerful tools to create a more balanced regulatory framework. Almost a year and a half ago, I outlined a comprehensive plan that uses our authority to remove barriers to infrastructure deployment. I’d like to quickly discuss that plan and update you on where things stand.

First, I proposed we make it easier to deploy small cells and DAS. This is becoming more vital every day. Densification and heterogeneous networks, or “het-nets,” are becoming the new norm. Providers are looking for ways to squeeze more capacity out of existing spectrum. By using more and

¹ See Alan Pearce, Ph.D., J. Richard Carlson, MBA, Michael Pagano, Ph.D., *Wireless Broadband Infrastructure: A Catalyst For GDP And Job Growth 2013–2017* (Sept. 2013).

smaller antennas at lower power, these solutions can improve coverage and enable us to reuse scarce spectrum.

Our rules need to keep pace with this technological trend. Many of them were written with large macro sites in mind. They just don't make sense when applied to minor facility changes. Nor should they apply to small cell deployments that carriers are using to cover targeted indoor or localized outdoor areas, such as office buildings, stadiums, and local parks.

My own prescription? We should modernize our rules and exempt DAS from our environmental processing requirements, except for those involving RF emissions. Our rules let us do this if a technology is "deemed to have no significant effect on the quality of the human environment." Given their size and appearance, I believe that DAS meet this standard.

On a related note, we should update our historic preservation regulations—which impose yet another layer of process—to account for DAS and small-cell technologies. These systems are barely visible, and they hardly impact the surrounding environment. As a result, I don't think that most DAS or small cells should be subject to review under section 106 of the National Historic Preservation Act. In order to take this step, we will need to renegotiate Nationwide Programmatic Agreements with State Historic Preservation Officers, the Advisory Council on Historic Preservation, and tribes. We should do just that. Neither DAS nor small cells belong on Maggie's Farm no more.

Second, I proposed to make clear that local moratoriums on the approval of new wireless infrastructure violate section 332(c)(7) of the Communications Act. In that section, Congress recognized the important role that state and local governments play in approving requests to construct or modify wireless facilities. But Congress also imposed important limits on that authority and specifically required that state and local governments act on all such requests "within a reasonable period of time."² And now some cities are trying to evade those limits by adopting moratoriums on the approval of new wireless infrastructure. This regulatory ring of fire is bad for companies and consumers alike.

Here's how it happens: Somebody files an application with a local government for a new wireless facility. Then, a few people in the community complain. Rather than deal with the issue, the local government calls an indefinite timeout until it can decide how to address issues raised by the application. This has happened here in South Florida, with cities like Tamarac and Hallandale using the tactic in recent years.

This is not a situation where one could say, as Dylan did, "You just kinda wasted my precious time. But don't think twice, it's alright." So I proposed that the FCC make clear that such delays are contrary to Section 332. Local governments of course need to review and revise existing laws every now and then to account for changed circumstances. But consumers deserve certainty that local rules or efforts to update those rules will not stand in the way of better service. At a minimum, the FCC should make it clear that a moratorium is not a loophole that localities can sneak through to avoid the limits of section 332(c)(7).

Third, I called on the FCC to build on its wireless facilities "shot clock"³ to further reduce delays and ease the construction of new networks.

As you may recall, the FCC unanimously adopted the shot clock a few years ago. It gives local zoning authorities 90 days to act on collocation requests and 150 days for all other requests. The FCC

² 47 U.S.C. § 332(c)(7)(B)(i)(II).

³ See *Petition for Declaratory Ruling to Clarify Provisions of Section 332(C)(7)(B) to Ensure Timely Siting Review and to Preempt Under Section 253 State and Local Ordinances That Classify All Wireless Siting Proposals as Requiring a Variance*, WT Docket No. 08-165, Declaratory Ruling, 24 FCC Rcd 13994 (2009), *recon. denied*, 25 FCC Rcd 11157 (2010), *aff'd sub nom. City of Arlington, Texas v. FCC*, 668 F.3d 229 (5th Cir. 2012), *aff'd*, 133 S.Ct. 1863 (2013).

took this step after hearing that 760 applications had been pending with states and municipalities for more than a year and that more than 180 had been pending for at least three years. For how many years must a company wait before it's allowed to deploy? Thankfully, the answer's not blowin' in the wind, as the Supreme Court recently upheld our authority to impose the shot clock.⁴

But there's still a problem: If a city doesn't process your application within the 90- or 150-day timeframes, your only remedy is to file a lawsuit. In other words, the solution to municipal delay is . . . litigation, which doesn't exactly put you in that Internet fast lane I've heard a lot about recently.

To solve this problem, the FCC needs to bring down the gavel if a local government does not act on a wireless facilities application by the end of our shot clock deadlines. We should borrow an idea that the agency used when it reformed video franchising back in 2006. We should deem an application granted if a local government doesn't act on it by the end of the shot clock. This would maximize the incentive for local governments to rule on applications. And it would let companies stop litigating over infrastructure and start deploying it.

Similarly, we should clarify that our shot clock does apply to DAS. Believe it or not, some have suggested it doesn't, even though neither Section 332 nor our shot clock rules make any distinction between DAS or other wireless technologies. Given their size and importance, DAS should raise fewer state and local concerns than traditional wireless infrastructure, not more.

That was the plan: (1) streamline the treatment of DAS and small cells, (2) curb local moratoria, and (3) improve our shot-clock rules with a deemed-grant remedy that applies to all wireless technologies.

Back then, I said that time was of the essence. I'm pleased that my colleagues agreed. Less than a year after I outlined my plan, the FCC sought public input on these and other ideas for promoting the deployment of wireless infrastructure.⁵ The time for submitting comments ended two months ago, which means the time for deciding is here.

In my view, we should bring the same urgency to this task that has animated our recent push to make additional spectrum available for mobile broadband. So I think the time has come to put the FCC on its own shot clock. The Commission should commit to adopting rules within the next six months.

And when we do that, let's also clarify that section 6409(a) of the Spectrum Act means what it says. As you may know, that law says that "a State or local government may not deny, and shall approve, any eligible facilities request for a modification of an existing wireless tower or base station that does not substantially change the[ir] physical dimensions." By preempting state and local roadblocks to deployment, Congress sought to promote small cells and het-nets.

This should be an easy lift. After all, how can anyone misinterpret the mandate that state and local governments "may not deny, and shall approve, any eligible facilities request"? It's pretty simple. As Johnny Cash might say, "you don't go writin' hot checks down in Mississippi, there ain't no good chain gang, and Congress wants infrastructure deployed." And yet, I've heard reports that some localities are nevertheless dragging their heels and subjecting qualifying deployments to discretionary review.

In my view, the law is clear: Denial of eligible requests is not an option. So establishing a deemed-grant remedy with a relatively short fuse—say, 30 days—should be effective at keeping everyone on track.

⁴ *City of Arlington v. FCC*, 133 S. Ct. 1863 (2013).

⁵ See *Acceleration of Broadband Deployment by Improving Wireless Facilities Siting Policies; Acceleration of Broadband Deployment: Expanding the Reach and Reducing the Cost of Broadband Deployment by Improving Policies Regarding Public Rights of Way and Wireless Facilities Siting; 2012 Biennial Review of Telecommunications Regulations*, WT Docket Nos. 13-238, 13-32, WC Docket No. 11-59, Notice of Proposed Rulemaking, 28 FCC Rcd 16438 (2013).

Just as important, we need to set objective standards for when requests involving section 6409 won't "substantially change the physical dimensions" of existing wireless towers or base stations. The Commission already has a head start on this project with our nationwide agreements on the collocation of wireless antennas and implementation of the National Historic Preservation Act review process.⁶ Outlining those standards soon will head off the inevitable disputes that are sure to arise—and it would be a sad irony if Commission inaction emboldened state and local governments to do nothing as well.

None of what I've said means that states don't have a place at the table. The federal government might get most of the attention, but states are also helping to speed the deployment of next-generation wireless networks. Just this year, six states have enacted legislation to streamline broadband deployment. For example, just north of here, the Georgia legislature recently passed the Mobile Broadband Infrastructure Leads to Development Act (or BILD Act). The BILD Act is expected to expand mobile broadband in the Peach State by setting predictable timelines and eliminating costly delays in the siting of wireless facilities. These are great models for other legislatures to follow—and I hope they do.

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These are some of my ideas for how the FCC should help ease our way into the wireless world. But I'm eager to hear from you. You're the ones who negotiate access to sites. You're the ones who have to get approvals from state and local governments. You're the ones who have developed and deployed the infrastructure that has made our commercial networks the envy of the world.

So be in touch. Whether it's a wireline or wireless call, email or tweet, in-the-office meeting or on-the-street encounter, let me know what you think. With your wisdom, with Jonathan's advocacy, with decisive FCC action, we can help the wireless industry walk the line. Until then, I'll continue to be your man in black.

⁶ See 47 C.F.R. Part 1, Appendices B, C.