

**REMARKS OF COMMISSIONER AJIT PAI  
AT WISPAPALOOZA**

**LAS VEGAS, NEVADA**

**OCTOBER 15, 2014**

I want to thank Elizabeth and the Wireless Internet Service Provider Association for inviting me to speak here at WISPAPALOOZA. There's been a lot of buzz about this annual event, so I asked one of my interns to check online to see what past attendees thought about the show. It started simply enough: One attendee said, "I can honestly say it was one of the best trade shows I've ever attended."

But I was taken aback by a few reactions. One enthusiastic soul summed up his experience this way: "you'll lose your mind, free your soul, and have the best time of your life." Another recalled that she "cried tears of joy." Someone else claimed that he "never experienced such a ridiculous dance party." And Dev Hynes, the lead singer for the British funk and soul band Blood and Orange, alleged that he and his girlfriend had been assaulted by security officers.

What did I learn from all this? Either this is the wildest trade show of them all, or my intern didn't realize I was speaking at *WISPAPALOOZA* and not the other \_\_Palooza.

In all seriousness, it is great to be here with you tonight, celebrating the 10th anniversary of WISPA's founding. And it's especially meaningful given my family's connection to your industry.

As some of you may know, I grew up just outside a small town called Parsons in Southeast Kansas. It's located about three hours south of Kansas City—not exactly on the beaten path. When I went off to college and law school in the 1990s, I encountered broadband for the first time. But dial-up was still the only option for Internet access back home. Fortunately, in 2000, some entrepreneurs saw the need for better, faster Internet access. They started Wave Wireless, a WISP dedicated to delivering high-speed Internet to the residents of Labette County.

Wave Wireless is locally owned and operated in Parsons. It's a mainstay in town. You can always find its booth at the Labette County Fair or its float in the annual Christmas Parade. More importantly, Wave Wireless serves over 23,000 people in Southeast Kansas—including my parents. So every time my three-year-old son and one-year-old daughter Skype with their grandparents, my family sees the value wireless ISPs bring to rural America.

The story of Wave Wireless isn't unusual. At last count, about 2,000 WISPs in the United States serve approximately 2 million consumers. Almost half of all Americans, or 157 million people, can now access broadband using a WISP. And WISPs generally aren't racking up numbers by serving customers in large cities. Instead, they serve towns, farms, back roads, and the vast countryside of the Great Plains and American West. For example, WISPs offer high-speed Internet access to over 90% of the people in Arizona, Colorado, Idaho, Nebraska, Nevada, and Utah—an impressive feat, especially once you realize that these six states span almost 600,000 square miles, or almost one-sixth of our country's land mass.

In rural America, WISPs are often the only terrestrial game in town. I learned that for myself when I visited JAB Broadband last year. Founded less than a decade ago, JAB is now the nation's largest WISP. Its subsidiaries offer Internet access at speeds up to 1 Gbps in 14 states, from Idaho to Illinois, Nevada to Nebraska.

What I found striking was JAB's strategy. It doesn't focus on the densely populated urban cores where the business case for deployment is relatively easy and profit margins are higher. Instead, it targets small, rural towns where customers might otherwise go unserved. And it gives those customers, from Mom and Pop to mom-and-pop businesses, a value proposition they've never known. As JAB's co-founder has put it, "People are now realizing they have a competitive choice for reliable, fast broadband

service.” In recognition of JAB’s accomplishments, *Red Herring* named it one of the “Top 100” tech companies this year, and WISPA recognized it as Operator of the Year in 2013.

When it comes to rural, sparsely populated areas, JAB is just one example of how wireless ISPs have taken to heart Congress’s call that we need to “encourage the deployment . . . of advanced telecommunications capability to all Americans.”

And these days, wireless Internet technology is bringing its promise to cities as well. Take netBlazr, a WISP which operates under the tagline “Free your broadband.” netBlazr offers a competitive alternative to traditional wireline service in cities like Boston, where many buildings have not yet been rewired or refitted for wired Internet. netBlazr does this by bringing the concept of mesh networking to life—every customer is a node in the network, which relies on directional antennas to connect everyone. That helps the company keep its costs down and offer dedicated broadband lines that compete with its larger competitors.

All this reminds me of something I love about the fixed wireless ecosystem. Rural or urban, big or small, WISPs are scrappy competitors. They have real connections to their customers and communities. How each WISP came about, confronted the challenges of deploying broadband in its service footprint, and is connecting customers—these stories are remarkable.

And the entire WISP ecosystem is flush with innovation, too. This afternoon, I met on the show floor just a few of the many entrepreneurs who are creating wireless technologies that seemed impossible just a few years ago. Carlson and Runcom have developed TV white space solutions that will help WISPs extend their reach. Cambium and Ubiquiti are supplying WISPs with powerful backhaul, access, and routing equipment. Mimosa is developing potentially game-changing ways for WISPs to put unlicensed spectrum—once considered “junk”—to good use for enterprise customers in big cities and residential customers in small hamlets.

Let me spend a minute on that last point: unlicensed spectrum. Most people never heard about it until Wi-Fi came along about a decade ago. Yet WISPs have been relying on unlicensed spectrum and the 802.11 standard for 20 years, constantly finding ways to do more with it. They’ve helped to build a culture of Wi-Fi that everyone today takes for granted.

I believe the FCC should be on the side of entrepreneurs like WISPs, and that means in part being in favor of unlicensed spectrum. That’s why I pushed for and supported the FCC’s decision back in March to raise the power limits on U-NII-1 devices and to let them be used outdoors. This allows WISPs to put 100 MHz at the bottom of the 5 GHz band to better use.

And that’s why I’ve been studying a recent petition filed by WISPA regarding changes that were made to our rules for the 5.725–5.85 GHz band. WISPA has told us that these changes may raise the cost of deploying wireless broadband by hundreds of dollars per user or even prevent WISPs from providing connectivity to their existing customers. I take those concerns seriously. And I hope the FCC will work with WISPA and develop an engineering solution and implementation schedule that will satisfy everyone’s concerns.

But making do with the unlicensed spectrum we have today isn’t enough. That’s why I’ve been pushing for two years to make another 195 MHz of 5 GHz spectrum available for unlicensed use. Gigabit wireless throughput is at our doorstep. And that’s why I’ve also advocated for finding ways to make more 3.5 GHz spectrum available across the entire country. With the extra spectrum, consumers will enjoy greater bandwidth, reduced congestion, and—let’s hope—even more service from wireless ISPs. Now, achieving this goal will not be without its challenges. No incumbent wants to give up its spectrum, least of all the federal government. But we’ve studied the issues in the 3.5 and 5 GHz bands long enough. It’s time to make the potential practical.

Of course, spectrum is just a part of the equation. No matter how much spectrum we make available, we have to make sure we've removed barriers to the deployment of wireless infrastructure—barriers that can prevent WISPs from using that spectrum. Too often, we've found that federal, state, and local regulations stand in the way of deployment of everything from big towers to small cells. That needs to change, especially in a world going wireless. So I'm glad that the FCC is going to vote on October 17 on reforms that will streamline some of those regulations.

You don't need me to tell you that WISPs are many things: permission-less innovators, unlicensed competitors, savvy operators, inventive engineers. They are underdogs, which warms my heart as a lifelong Kansas City Royals fan (how about that game today?). But I'm worried that when it comes to regulation, Washington sees wireless ISPs more like Goliaths instead of the Davids they are.

What I have in mind, for those who haven't been reading the news or watching HBO, is the raging debate at the FCC about regulating the Internet. The nominal topic of the debate is so-called "net neutrality," and buzzphrases like Title II and paid prioritization are getting a lot of attention.

But one important topic is getting lost in the shuffle. What would new regulations mean for small ISPs? How would they impact the WISPs that serve rural areas no one else does? And the WISPs that provide a competitive alternative to larger providers?

Let's start with a basic truth that all the noise about net neutrality has obscured: Everyone wants a free and open Internet.

That's been the case for a long time. One decade ago, then-FCC Chairman Michael Powell outlined four principles of Internet Freedom: the freedom to access lawful content, the freedom to use applications, the freedom to attach personal devices to the network, and the freedom to obtain service plan information. Republicans and Democrats, consumers and industry, *everyone* agreed with these principles.

Indeed, the consensus in favor of these four Internet freedoms has aided the Internet's tremendous growth over the past ten years. It's made the United States the epicenter of online innovation. And it's incentivized long-term investments in broadband infrastructure—like the investment wireless ISPs make in their networks. As I said when FCC Chairman Tom Wheeler reopened the net neutrality issue five months ago, I support the four Internet freedoms, and I am committed to protecting them going forward.

But the real debate isn't about these freedoms, or net neutrality, or even paid prioritization. It's about whether the FCC should forsake the Clinton-era decision to let the Internet grow and thrive free from price regulation and other common-carrier obligations. It's about whether a few unelected government officials should reclassify broadband as a Title II service and subject broadband providers like WISPs to rules based on 19th-century railroad regulation.

In my view, heavy-handed regulation would be a terrible mistake. The common-carriage rules of Title II were designed to control Ma Bell, a continent-spanning company with a legal monopoly on long-distance telephone service. You couldn't get farther from that kind of marketplace behemoth than Wave Wireless, or JAB Broadband, or any of the hundreds of wireless ISPs that dot the landscape. Yet those rules would apply to you, too.

What types of rules? WISPA put it best:

Title II includes a host of arcane provisions that have nothing to do with broadband service, including rules regarding interlocking directorates, valuation of carrier property, uniform systems of accounts and depreciation charts, telephone operator service, Bell Operating Company entry into interLATA services, manufacturing of telecommunication equipment and customer premises equipment, and electronic publishing.

It would be up to the FCC to decide how to apply each of these provisions to Internet access services. And it would be up to you to hire some expensive accountants. To take one example, how

would we apply our Part 32 accounting rules to WISPs? These rules specify more than 100 ways to break down a company's revenues and expenses, including how to depreciate capital expenses, how to account for motivational posters and artwork, and where to store information about the cost basis of different investments. No accounting school even teaches these onerous requirements. I can't imagine how a small WISP could possibly comply.

And that's just one requirement. The FCC would have authority to adopt rules like this for every aspect of the business.

Here's another way to think about what Title II means. Most WISPs already file FCC Form 477 to report where you offer service each year. Now think about similar reporting on outages, on your revenues, on your prices and service offerings. Think about quarterly certifications that you comply with a host of regulatory obligations. And think about the possibility of increased liability from enforcement. For as WISPA has observed, "with more rules to follow, chances for a small broadband provider to be hauled into an enforcement proceeding also increase."

Perhaps that's why the Obama Administration's Small Business Administration recently urged the FCC to "address[] the concerns raised by small businesses in comments" and "exercise appropriate caution in tailoring its final rules to mitigate any anti-competitive pressure on small broadband providers as well."

The concerns of small businesses need to be front and center in this debate, not an afterthought to an ideological crusade. That's why I've invited the President and Founder of Alamo Broadband, a small WISP in Elmendorf, Texas, to testify next week at my field hearing on Internet regulation at Texas A&M. I want to hear his perspective on what it takes for Alamo to deliver quality Internet access and whether Internet regulation would reduce Alamo's incentives to innovate and invest.

Small ISPs serving rural areas already face enough challenges: Consumers have lower income, distances are farther, and deployment is more expensive. Regulating broadband under Title II would only exacerbate these problems. It would raise your costs and cloud your businesses in a haze of regulatory uncertainty. I agree with the SBA that "[s]mall business participation in the service of broadband is vitally important for achieving the goal of greater consumer access and choice," and that's precisely why I'm so worried about Title II.

But don't just take it from me. The U.S. Chamber of Commerce has said that Title II would "harm private sector-investment in broadband infrastructure, innovation, consumer choice, and job creation." Forty-two national minority organizations have warned that Title II would "institutionalize second class digital citizenship" for communities of color and new adopters. And WISPA itself wrote that, "reclassification would . . . prevent[] investment, stifl[e] innovation and increas[e] compliance costs for small businesses."

What is more, complying with one-size-fits-all network management rules will especially harm WISPs. Unlike wireline providers, WISPs often operate on shoestring budgets, and their network capacity is often severely constrained. There's only so much unlicensed (or even licensed) spectrum available. And backhaul doesn't come cheap in rural markets. Indeed, one fiber-optic cable has greater bandwidth than the entire usable radio spectrum up to 100 GHz. WISPs have access to a fraction of that spectrum—about 1%. So if a few WISP users consume a disproportionate amount of bandwidth, it could bring the whole network crashing down.

Under the FCC's proposed rules, the federal government could look over your shoulders and second-guess every step you take to manage your customers' online experience. You may see it as ordinary and reasonable network management, but someone in Washington may claim it's a net neutrality violation. So why would you take the risks to innovate and supply a high quality of service? And how would this serve the interests of the millions of Americans who rely on WISPs to keep them connected?

President Ronald Reagan wisely said that the “government’s view of the economy could be summed up in a few short phrases: If it moves, tax it. If it keeps moving, regulate it. And if it stops moving, subsidize it.” Unfortunately, I’m worried that’s where the FCC might be headed when it comes to the Internet. By imposing Title II regulation, universal service charges would be added to Americans’ broadband bills and onerous new regulations would be placed on service providers. And then, when our rules drive many small WISPs out of business, the FCC would have to provide greater subsidies to encourage others companies to serve the rural areas that WISPs used to cover without any subsidy at all. Needless to say, I don’t think that this strategy makes any sense whatsoever, whether in Washington or anywhere across this country’s vast expanses. I hope that the free-market, innovative examples of Wave Wireless, of JAB Broadband, of netBlazr, and so many others among you, persuade the FCC to choose the better course.

\* \* \*

In conclusion, thank you once again for inviting me to join you. And thanks again to all the WISPs out there who connect Americans to the online world every day. Counting my parents, wife, and kids, you’ve got at least six fans in the Pai household. And as a Commissioner, I know the risks you take, I am in awe at the sweat equity you invest, and I am grateful for your fulfillment of the Communications Act’s aspiration that “all the people of the United States” should have access to first-rate communications services.

Let’s continue the conversation in the time to come. Please stop by my office if you are ever in Washington, DC; my door is always open. You can also email me at [ajit.pai@fcc.gov](mailto:ajit.pai@fcc.gov), or even write to me on Twitter. My handle is @AjitPaiFCC—and yes, I write my own posts and I respond.

And now, if you’ll excuse me, I’m going to surf the crowd.