

**STATEMENT OF AJIT PAI
COMMISSIONER, FEDERAL COMMUNICATIONS COMMISSION
HEARING BEFORE THE APPROPRIATIONS SUBCOMMITTEE ON
FINANCIAL SERVICES AND GENERAL GOVERNMENT
SEPTEMBER 11, 2013**

Chairman Udall, Ranking Member Johanns, and Senators Durbin, Coons, and Moran, it is a privilege to appear before you today. Thank you for inviting me to testify on the work of the Federal Communications Commission (FCC). We have been busy, and today I'd like to share with you my views on several important issues that we are confronting, namely: freeing up spectrum for commercial use, removing regulatory barriers to infrastructure investment, revamping the E-Rate program, and reforming the agency's processes.

Spectrum.—Given this Subcommittee's focus on appropriations, it is worth noting that the FCC is one of few agencies that can generate a profit for the federal government. By auctioning off spectrum, the Commission has raised tens of billions of dollars for the Treasury over the last two decades. Between 2005 and 2008, for example, the Commission's spectrum auctions raised over \$33 billion that was used for deficit reduction, and the FCC's auctions program was a net contributor to the Treasury each year.

Over the last four-and-half years, however, the Commission's record on this front has been disappointing. Since January 2009, the Commission has raised a paltry \$72 million in auction revenue, or about two-tenths of one percent of the amount raised in the prior four years. Indeed, when you account for the Commission's spending on auctions, our auctions program has actually lost money in each of the last four years. This is bad news not just for the Treasury but also for American consumers, whose demands for bandwidth increase as their use of tablets and smartphones proliferates.

That is why, since joining the Commission last May, I have concentrated on trying to accelerate the allocation of spectrum for mobile broadband and rejuvenate the Commission's auction program. I am pleased to report that we recently have made real progress on both of these fronts.

For example, thanks to the leadership of Chairwoman Clyburn, the Commission will be ready to auction 10 MHz of H-Block spectrum for mobile broadband in January 2014. This auction would push badly needed spectrum into the commercial marketplace. It is also projected to raise at least one billion dollars—money that could be devoted to important national priorities (more on those shortly). Furthermore, a successful H-Block auction will signal to the marketplace that the FCC still has both the capacity and the will to hold major spectrum auctions.

I recognize that some would prefer that the Commission delay the H-Block auction, but I believe doing so would be a serious mistake. For one thing, this spectrum *will* be ready to be auctioned in just a few months; as the saying goes, a bird in the hand is worth two in the bush. For another, we should not run the risk of linking the auction of spectrum that is ready to be released into the commercial marketplace with other spectrum that poses much more difficult policy and technical challenges. In short, we cannot and should not go six years without a major spectrum auction. The time for action has arrived.

Auctioning the H Block is just one of the many directives and responsibilities that Congress entrusted to us last year in the Spectrum Act. The Act requires the Commission to bring additional spectrum into the commercial marketplace to address the imminent spectrum crunch. The proceeds of the resulting auctions will be used to establish a nationwide, interoperable public safety broadband network, to reduce the deficit, and to hasten the deployment of next-generation 911 services. Since today is September 11, the first of those priorities merits special mention. Twelve years after the terrorist attacks against our nation, we still do not have a nationwide, interoperable public safety broadband network. However, that goal could be achieved if the Commission is able to raise the necessary funds for the First Responder Network Authority, as Congress directed. As we implement the Act, our top priority must be to adopt sound spectrum policies that allow us to meet our statutory duties.

A successful broadcast incentive auction is critical to accomplishing this task. And for the incentive auction to succeed, I believe five principles must guide our work. *First*, we must be faithful to the statute. *Second*, we must respect the laws of physics as we design the band plan and the repacking algorithm. *Third*, we must be fair to all stakeholders. *Fourth*, we must keep our rules as simple as possible. And *fifth*, we need to complete this proceeding in a reasonable timeframe.

If we hew to these principles, I remain optimistic that the incentive auction will prove a success. But there is much to be done. We must hammer out band plans that are technically feasible and correspond to the amount of spectrum we clear. We must determine how much market variation, if any, is appropriate. We must nail down how to optimally repack broadcasters who choose not to participate in the reverse auction. We must design an auction that maximizes net revenues and lets the market determine which bids will be accepted and how much spectrum will be cleared. We must continue efforts to coordinate with the governments of Canada and Mexico. And we must continue to do aggressive and comprehensive outreach to all affected constituencies.

Given all these tasks, I hope we can avoid unnecessary complications that may drag out our deliberations and delay the start of the auction. For example, some have suggested that we base the reserve prices offered to broadcasters on their enterprise values or on the populations they serve. Others have suggested that we restrict who may participate in the forward auction—in effect, set quotas that determine in advance who wins and who loses. But rules such as these will make an already complex process more complicated and will make the auction more likely to fail. We need to have a free and open auction where market forces determine the outcome. The prices paid to broadcasters should be determined by the auction process, not by government fiat. And participation in the forward auction should be open to all. A contrary approach will distort not only who may purchase spectrum, but also how much spectrum will be available for auction. And such an approach will reduce net revenues and impede our best chance to satisfy the many funding priorities Congress set out in the Spectrum Act.

Of course, the broadcast incentive auction and the H-Block auction aren't the only auctions the Commission has on its plate. The Spectrum Act requires us to reallocate and auction another 55 MHz of spectrum by February 2015, including the 25 MHz of spectrum adjacent to the so-called AWS-1 band (2155–2180 MHz). To maximize the value of this spectrum—for consumers who want their devices to work around the world, for wireless providers and manufacturers who seek economies of scale, and for the Treasury, which could

receive billions in revenue from this auction—we will need to pair it with the 1755–1780 MHz band now occupied by federal incumbents.

Unfortunately, federal incumbents do not have much incentive to consolidate their spectrum holdings or use their spectrum more efficiently (without impairing their ability to carry out their missions). That’s why Congress passed and amended the Commercial Spectrum Enhancement Act and established the notification-and-auction process for auctioning federal spectrum. Once the FCC commences that process, federal incumbents and the National Telecommunications and Information Administration have 18 months to put together plans to transition federal spectrum into commercial hands. It’s a process with little downside because if the auction does not raise more than 110 percent of the estimated costs of transitioning, auction participants and federal users are held harmless.

I’m pleased to report that shortly after I proposed the use of this process in March, the Commission invoked it.¹ As a result, we are slowly proceeding towards licensing and auctioning the 1755–1780 MHz band. As we do so, we should aim to clear and reallocate the band rather than forcing federal users and commercial operators to undertake the complicated, untested task of spectrum sharing. It’s not only the best policy. It’s also the preference Congress codified in law.

Before moving on to another topic, I should note that licensed spectrum is not the only game in town. Unlicensed spectrum has been a boon to consumers and innovators alike. For instance, virtually everyone with a smartphone or laptop has benefited from WiFi, and myriad other applications like garage door openers and baby monitors rely on unlicensed spectrum as well. Accordingly, increasing the amount of spectrum available for unlicensed use has been an FCC priority. In February, the Commission teed up the expansion of unlicensed use by a full 195 MHz in the 5 GHz band.² That’s more than three times the amount of licensed spectrum we’re hoping to recover from federal users, and it’s spectrum located adjacent to existing unlicensed allocations. That means fatter pipes—in the spectral sense—for next-generation technologies like the IEEE 802.11ac standard. This will allow higher-speed, higher-capacity connections and will also reduce congestion in apartment buildings, schools, libraries, and offices. To keep the ball rolling on this project, we should tackle some of the less contentious issues this year—such as adding 25 MHz to the U-NII-3 band and creating a more unified set of rules for the 5 GHz spectrum—and aim to finish the rest by next July.

Infrastructure Investment.—Turning to infrastructure investment, we have come a long way since the passage of the Telecommunications Act of 1996. Back then, copper was king, and consumer choice was minimal. Today, almost every segment of the communications industry is competing to offer newer, faster, and better broadband services. Telecommunications carriers are upgrading DSL with IP-based technology and fiber. Cable operators are deploying

¹ Statement of Ajit Pai, Commissioner, Federal Communications Commission, Hearing Before the Committee on Commerce, Science, and Transportation of the United States Senate, “Oversight of the Federal Communications Commission at 2–3 (Mar. 12, 2013), <http://go.usa.gov/DWPG>; Letter from the Honorable Julius Genachowski, Chairman, FCC, to the Honorable Lawrence E. Strickling, Assistant Secretary for Communications and Information, U.S. Department of Commerce (Mar. 20, 2013), <http://go.usa.gov/DWEC>.

² *Revision of Part 15 of the Commission’s Rules to Permit Unlicensed National Information Infrastructure (U-NII) Devices in the 5 GHz band*, ET Docket No. 13-49, Notice of Proposed Rulemaking, 28 FCC Rcd 1769, 1825 (2013) (Statement of Commissioner Ajit Pai), available at <http://go.usa.gov/DWm3>.

equipment based on the DOCSIS 3.0 technical standard to increase bandwidth tenfold. Satellite providers are offering 12 megabit packages in parts of the country that never dreamed of such speeds. Communities are reforming their laws to attract gigabit deployments from new entrants and incumbents. And millions of Americans—many of whom don't subscribe to fixed broadband service at home—now have access to the Internet on the go using the mobile spectrum the Commission auctioned back in 2006 and 2008.

What are the results of all this broadband competition? More choices for consumers and major challenges to old business models. Traditional voice telephony is a good example. In living memory, you only had one option: Ma Bell. But now you can select among a number of Voice over Internet Protocol (VoIP) providers, including cable operators. Or technology companies like Google, Skype, and Facebook. Or even video teleconferencing providers. Essentially, voice is becoming just another application riding over the Internet. It's no surprise, then, that today only one-third of U.S. households subscribe to plain old telephone service over the public-switched telephone network (PSTN), and that number is dropping each year.

Underlying these changes is a technological revolution. Analog signals have gone digital. Circuit switching is giving way to packet switching. And first-generation cellular has been replaced with ultra-fast LTE. The common thread knitting all of these changes together is the Internet Protocol (IP), a near-universal way to organize and transmit data.

So what is the problem? The FCC's regulations still contemplate a world based on fading technologies. Instead of a converged marketplace in which companies from once-disparate niches compete against each other, the Commission too often sees silos of services and would-be monopolists (perhaps in part because many provisions of the Communications Act captured snapshots of the marketplace between 1934 and 1996—snapshots often yellowed with age).

Nine years ago, then-Chairman Michael Powell opened the IP-enabled services docket to try to resolve this regulatory anachronism and to clarify many ambiguities in the law.³ But many of the basic questions raised in that proceeding still remain, such as whether interconnected VoIP is an "information service" or a "telecommunications service." And because of that regulatory uncertainty, companies may hold back billions of dollars in investment in IP-based technologies as they wait to see whether that investment will be welcomed or compromised by the federal government.

I believe that the Commission needs to take a hard look at its regulations in light of the IP transition, especially in light of the fact that the American people are ahead of Washington on this issue. Consumers are sending a clear message about the superiority of IP-enabled networks. For instance, there were over 37 million VoIP subscriptions in 2011. The number of copper telephone lines has decreased dramatically in just the past ten years. Government should heed the market's message and give the private sector the flexibility to make investment decisions based on consumer demand, not outdated regulatory mandates.

³ *IP-Enabled Services*, WC Docket No. 04-36, Notice of Proposed Rulemaking, 19 FCC Rcd 4863 (2004), available at <http://go.usa.gov/DWmA>.

I hope my colleagues will work with me to establish a modern regulatory framework for the IP transition based on a few simple principles.⁴ *First*, we must ensure that vital consumer protections remain in place. When consumers dial 911, they need to reach emergency personnel; it shouldn't matter whether they are using the PSTN, a VoIP application, or a wireless phone. The same goes for consumer privacy protections and antifraud measures like our slamming rules. *Second*, we must not import the broken, burdensome economic regulations of the PSTN into an all-IP world. No tariffs. No arcane cost studies. And no hidden subsidies that distort competition to benefit companies, not consumers. *Third*, we must retain the ability to combat discrete market failures and protect consumers from anticompetitive harm. *Fourth*, we must respect the metes and bounds of the Communications Act and not overstep our authority.

The right way to start building that framework is to start ironing out the technical aspects of the transition immediately. And the best way to do that is with a real trial, an All-IP Pilot Program. An All-IP Pilot program would allow companies to choose a discrete set of wire centers where they could turn off their old time-division-multiplexed electronics and migrate customers to a newer, all-IP platform. Moving forward with such a program would signal to carriers that we won't force them to invest in old networks forever. And doing so would allow us to move closer to the day when carriers will be able to focus exclusively on investing in the networks of the future rather than maintaining the networks of the past.

Just as we must eliminate old regulatory barriers to infrastructure investment, we must also be careful not to establish new ones. A good example is the Commission's implementation of the quantile regression analysis (QRA) benchmarks from the November 2011 *Universal Service Transformation Order*.⁵ The QRA benchmarks apply only to rural carriers and are supposed to create "structural incentives for rate-of-return companies to operate more efficiently and make prudent expenditures."⁶ But reality has not caught up with theory. Instead, the QRA benchmarks have resulted in unpredictability and uncertainty, chilling the investment climate and impeding the deployment of next-generation technologies and broadband services to rural Americans. As the Obama Administration's Department of Agriculture told the Commission in February, "demand for [Rural Utility Service] loan funds dropped to roughly 37% of the total amount of loan funds appropriated by Congress in [fiscal year] 2012."⁷

Here's one problem with the QRA benchmarks: Rural carriers must carefully plan their infrastructure over a five-, ten-, or twenty-year timeframe if they are to recover their costs. Congress recognized this by embedding within section 254 of the Communications Act the command that universal service support be "predictable." But the QRA benchmarks change annually, with no necessary connection between the benchmarks from one year to the next.

⁴ Remarks of FCC Commissioner Ajit Pai, "Two Paths to the Internet Protocol Transition," Hudson Institute, Washington, DC (Mar. 7, 2013), <http://go.usa.gov/DWmJ>.

⁵ *Connect America Fund; High-Cost Universal Service Support*, WC Docket Nos. 10-90, 05-337, Sixth Order on Reconsideration and Memorandum Opinion and Order, 28 FCC Rcd 2572, 2600 (2013) (*Sixth Recon Order*) (Statement of Commissioner Ajit Pai, Approving in Part and Concurring in Part), available at <http://go.usa.gov/DWVj>.

⁶ *Connect America Fund et al.*, WC Docket No. 10-90 et al., Report and Order and Further Notice of Proposed Rulemaking, 26 FCC Rcd 17663, 17742, para. 210 (2011), available at <http://go.usa.gov/DWv9>.

⁷ Letter from John Charles Padalino, Acting Administrator, Rural Utility Service, to Marlene H. Dortch, Secretary, FCC, WC Docket Nos. 10-90, 07-135, 05-337, GN Docket No. 09-51, CC Docket Nos. 01-92, 96-45, WT Docket No. 10-208, at 2 (Feb. 15, 2013), available at <http://go.usa.gov/DWYw>.

To be sure, the Commission gave rural carriers some relief back in February when we decided that carriers should be able to balance their capital investments against their operating expenses (rather than analyzing each—and possibly penalizing carriers for either—separately).⁸ And the Wireline Competition Bureau recently recognized that implementing a whole new regression model in 2014 would be infeasible given our slow progress in collecting accurate maps of each carrier’s study area.⁹

But I still have my doubts about the utility of the QRA benchmarks as implemented. It is important to remember that they do not save money for the Universal Service Fund, but merely redistribute support from one set of carriers to another. The 2014 benchmarks are likely to impact significantly more carriers than the 2013 benchmarks, all of which are based on flawed data and inaccurate maps. And rural carriers still cannot know whether they will be able to recover investments made today since the relevant benchmarks for those investments won’t be known until 2015. In short, the Commission needs to think long and hard about the QRA benchmarks.

E-Rate.—Speaking of the Universal Service Fund, I was pleased that we launched a proceeding to reform and revamp the Schools and Libraries program, better known as E-Rate, this summer.¹⁰ Established at the direction of Congress 16 years ago, the E-Rate program is intended to bring advanced services to schools and libraries across America. And in many ways, the program has been a success. Internet access in public schools has almost tripled, and speeds have grown alongside availability. Indeed, a 2010 FCC survey showed that 22 percent of respondents were “completely” satisfied and another 58 percent were “mostly” satisfied with the bandwidth they’re getting.

But like all federal programs, E-Rate has had its share of difficulties. For applicants, the funding process from start to finish can stretch for years. Additionally, the process too often requires the assistance of specialized E-Rate consultants to navigate arcane steps like Form 470 competitive bidding, Form 471 Program Integrity Assurance review, and the Form 500 commitment adjustment process. For parents, the process is so opaque that they cannot know ahead of time how much funding their school might receive and cannot track whether it is actually spent on enriching the education of their kids. For school boards, the priority system (under which things like paging and Blackberry services for administrators get prioritized over connecting a classroom to the Internet) distorts their spending decisions since some services are discounted by up to 90 percent while others may or may not receive any discount in a given funding year. And for everyone with a phone line, and who hence contributes to the program, it’s hard to tell what bang we’re getting for our universal service buck—although we do know that an average of \$600 million is spent each year on basic telephone service and other last-generation technologies.

There is a better way—one which would focus the E-Rate program on children. To create a student-centered E-Rate program, we need to fundamentally rethink how we structure

⁸ *Sixth Recon Order*, 28 FCC Rcd at 2583, para. 29, available at <http://go.usa.gov/DWV5>.

⁹ *Connect America Fund; High-Cost Universal Service Support*, WC Docket Nos. 10-90, 05-337, Order, DA 13-1656 (July 26, 2013), available at <http://go.usa.gov/DWVV>.

¹⁰ *Modernizing the E-Rate Program for Schools and Libraries*, WC Docket No. 13-184, Notice of Proposed Rulemaking, FCC 13-100 (July 19, 2013) (*Modernizing E-Rate NPRM*), available at <http://go.usa.gov/DWVH>.

the program. That means starting each school with an upfront, per-student allocation of funding so they know how much they can spend. That means cutting the red tape so that the initial application is just one page and there's only one other form needed before funds are disbursed. That means targeting funding at next-generation technologies like broadband and Wi-Fi while still letting local schools set their own priorities. And that means publishing all funding and spending decisions on an easily accessible, central website so that every parent, every journalist, every government watchdog, *every* American can see just how E-Rate funds are being spent.

The student-centered E-Rate program I have outlined¹¹ would fulfill E-Rate's statutory mission of bringing advanced services to schools and libraries across the country. It would free an extra \$1 billion for next-generation services in its first year, all without collecting an extra dime from the American people. And it would reduce waste, fraud, and abuse in the program and increase transparency and accountability.

Process Reform.—Finally, just as we need to reform the E-Rate process, we also need to reexamine our own administrative processes.¹² The FCC must strive to be as nimble as the industry we oversee. For all too often, proceedings at the Commission needlessly drag on for years, with predictable consequences. For example, an unanswered consumer complaint might mean that consumers are subject to telemarketing calls during dinner. An unadjudicated waiver deters a rural carrier from deploying broadband to its unserved customers. And an unfinished rulemaking leaves capital on the sidelines as companies weigh the regulatory risk of moving ahead.

Fortunately, we have made some progress on this front. Commissioners are voting on items more quickly after they are placed on circulation. The time between adoption and release of items has decreased. And we have reduced the FCC's backlog. My colleagues, aided by the hardworking Commission staff, deserve much credit for these improvements. But we still have much to do.

To start, we should become more accountable to the public and to Congress about how long it takes the Commission to do its work. We need to establish more internal deadlines, such as a six-month deadline for acting on waivers and a nine-month deadline for ruling on applications for review and petitions for reconsideration. We should also codify our informal 180-day shot clock for reviewing transactions—a deadline we too often honor in the breach. We should handle applications for review akin to the way the U.S. Supreme Court handles its *certiorari* process; this would help the FCC dispose of pleadings more efficiently. Additionally, we should report to Congress and the public about how we are doing in meeting those deadlines. I support the concept of creating an FCC Dashboard on our website that would collect key performance metrics about these deadlines—as well as our processing of consumer complaints—so that anyone can see just how well we're doing. This measure would bring some much-needed transparency to the agency.

¹¹ Remarks of Commissioner Ajit Pai, "Connecting the American Classroom: A Student-Centered E-Rate Program," American Enterprise Institute, Washington, DC (July 16, 2013), <http://go.usa.gov/DWvm>; *Modernizing E-Rate NPRM*, FCC 13-100 (Statement of Commissioner Ajit Pai), available at <http://go.usa.gov/DWvA>.

¹² Remarks of Commissioner Ajit Pai before the Federal Communications Bar Association (Feb. 21, 2013), <http://go.usa.gov/DWvJ>.

With greater accountability, I'm confident we would act with more dispatch. My emphasis on acting promptly is not just about good government. It is also about the impact the FCC's decisions (or lack thereof) have on our economy. The pace of change in the communications industry will only continue to accelerate. So too must the pace at the Commission. We can't let regulatory inertia frustrate technological progress or deter innovation.

As for existing deadlines, I am happy to report that we are doing better in meeting our statutory reporting requirements. This year, for the first time since 2006, the Commission adopted its annual video competition report one year after adopting the previous such report thanks to Chairwoman Clyburn and the staff of the Media Bureau. But we have many statutory reporting deadlines each year, and these reporting requirements mean we spend a substantial amount of time each year reviewing and writing about individual silos of the communications marketplace rather than reforming our regulation of it. Just this week, the U.S. House of Representatives unanimously passed legislation that would cure this problem. The FCC Consolidated Reporting Act¹³ would replace our disparate reporting obligations with a single biennial Communications Marketplace Report. This would make better use of limited Commission resources and would be more valuable to Congress as it undertakes its legislative responsibilities. I would draw your attention to that bipartisan legislation, and I stand ready to work with you in the hope that it will soon be signed into law.

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As you can see, even though we have not had a full complement of Commissioners during the past few months, the FCC nonetheless has been quite active. Through collaboration and collegiality, we have been able to accomplish a lot. For example, in addition to the issues discussed above, we have approved a second round of Connect America Phase I funding to expand broadband deployment in rural America, reformed the Video Relay Service program for people with disabilities to enhance competition and promote fiscal responsibility, and approved transactions that strengthened our nation's third largest wireless carrier.

Working together within the agency and with Congress, I'm confident that we will continue to discharge our responsibilities in a way that will serve the public interest well. I thank you again for holding this important hearing and for allowing me the opportunity to testify. I look forward to answering your questions.

¹³ H.R. 2844 (1st Sess. 2013), available at <http://go.usa.gov/DWwY>.