

**REMARKS OF FCC COMMISSIONER AJIT PAI
AT THE EMERGING TECHNOLOGY FORUM OF APCO INTERNATIONAL
“PUBLIC SAFETY COMMUNICATIONS IN THE DIGITAL AGE”**

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I am humbled to be here among you to discuss public safety communications in the digital age. After all, I am a man of words. You, on the other hand, are people of action: police officers, fire fighters, emergency medical technicians, and 911 call center operators who spend your days safeguarding your fellow citizens. To put it another way, you bring to mind characters from *Backdraft*. My days, by contrast, often remind me of scenes from *Office Space*.

That’s why one of the things I love about this job is getting out from behind my desk in Washington and learning from the public safety community what its mission is really about. In Virginia, I met with Steve Souder, Fairfax County’s Director of the Department of Public Safety Communications. He guided me through his operations center, which processes around one million 911 calls a year. On the floor of the center, a dispatcher told me that, even with today’s technology, the most important question a caller can answer is still one of the most basic: “Where are you?”

In Alaska, Anchorage Police Chief Mark Mew explained to me the challenges of protecting his city. While I had expected the long nights to be a problem, he told me that the long days, when the sun never sets, are the real challenge. After our visit, I put on a bulletproof vest and hopped in a squad car. For the next hour, I patrolled the streets with an officer, hearing just how critical communications are to cops on the beat. I also got some tips on how to deal with angry moose, something I hope we don’t have to worry about here in Orlando.

And I enjoyed meeting Stephen Owens, who hails from my home state. He is a captain in the Hesston, Kansas Fire Department. Captain Owens saw a problem: When a fire happened, the only way you could figure out which volunteer emergency personnel were available was by calling them, one by one. And he developed a solution: a mobile application. The app is a simple, but powerful way for public safety officials to manage their resources. Once installed on a fire fighter or paramedic’s mobile device, PageOut allows users to indicate their availability to respond to emergencies and to notify other users when they are en route. PageOut won the 2013 innovation contest held by Mobile Future—yet more evidence that the Sunflower State is a hotbed of tech innovation.

From all of these dedicated public safety professionals and others, I have learned this: The real action in public safety isn’t happening in Washington, DC. Innovation is occurring out in the field. That’s where public safety officials are deploying text-to-911 capabilities, where they are experimenting with new broadband services, where they are using technology as an ally to save lives. All of you, state and local officials directly responsible for the safety of the American people, are adapting your operations to leverage the possibilities of the digital age.

So what is the role of the federal government? It’s pretty simple, we should support your efforts, not supplant them.

Perhaps our most important initiative along these lines involves what Washington, DC calls the First Responder Network Authority, or FirstNet. Years ago, the 9/11 Commission identified as a national priority the need for interoperable communications systems that could better enable first responders to keep the public safe. Congress acted on this recommendation by creating FirstNet in the Spectrum Act of 2012. It directed the FCC to give FirstNet a license to operate in the 700 MHz public safety spectrum, including the D Block. FirstNet has no small task in front of it. It has to resolve some complicated technical issues and coordinate with the states to build a nationwide, interoperable public safety communications network.

Everyone in this room knows the first thing it's going to take to get FirstNet off the ground: money. In this regard, the ball is in the FCC's court. Congress has targeted \$7 billion in long-term funding for FirstNet. And this funding is supposed to come from the Commission's auction of wireless spectrum—particularly the broadcast incentive auction, where television broadcasters will sell spectrum and wireless carriers will buy it. If the FCC gets these auctions right, FirstNet will get the funding it needs to build out and fill the gap identified by the 9/11 Commission over a decade ago.

But that's a big "if." This is complicated, and there are a lot of moving parts. In order to have a successful incentive auction that raises the funds FirstNet needs, both broadcasters and wireless carriers must participate. It may take only two to tango, but this is more like Cirque du Soleil.

To get broadcasters to the table, we need to turn the abstract concept of an incentive into the concrete reality of cash. That means letting broadcasters in the United States know—sooner rather than later—just how much they could receive for participating in the incentive auction. That also means letting the auction process, not government fiat, determine the prices paid to broadcasters for their spectrum.

Getting wireless carriers to the table should be easier: With the dramatic growth of wireless broadband these past few years and the insatiable demand of consumers for faster data connections, many wireless carriers are champing at the bit to participate. The only question right now is whether we will let them do so or whether we will snatch defeat from the jaws of victory.

To maximize net revenues for public safety, all wireless carriers should be able to participate without restriction. Last year, a study found that limiting participation by wireless carriers could result in a 40 percent loss in gross auction revenues, or about a \$12 billion reduction. That could easily be the difference between success and failure when it comes to the incentive auction. And because how much spectrum we clear depends on the revenues we raise, less revenue means less spectrum cleared, which in turn means even less revenue. It's a vicious cycle that could cause the auction to collapse and leave no money for FirstNet.

I am not alone in seeing this as a problem. The Public Safety Alliance—whose members include APCO International, the International Association of Chiefs of Police, the International Association of Fire Chiefs, and the National Sheriffs' Association, among others—highlighted the incentive auction as the "best and perhaps only chance" to fund FirstNet. The Alliance called on the FCC to make sure the auction "realizes the full value of the repurposed broadcast spectrum."

Many in Congress have taken the same view. For instance, Chairman Jay Rockefeller of the Senate Commerce, Science, and Transportation Committee has stated that the incentive auction will be judged by "one simple principle—it must raise the resources needed for the FirstNet network." And Chairman Greg Walden of the House Communications and Technology Subcommittee has warned that a "broadcast incentive auction that fails to raise the revenue needed" for national priorities like FirstNet would be "a failure."

Indeed, there is a growing bipartisan consensus that the FCC should maximize net revenues and let market forces sort out who wins and who loses. Senator Chuck Schumer, a New York Democrat, has argued that if the FCC adopts "rules that would limit participation by certain wireless carriers . . . the biggest loser would be FirstNet and the public safety network America needs to thrive in the 21st century." Ranking Member John Thune of the Senate Commerce, Science, and Transportation Committee, a South Dakota Republican, has told the FCC that "its primary focus needs to be on how to maximize participation in the upcoming incentive auction . . . not how to limit . . . participation." Chairman Emeritus John Dingell of the House Energy and Commerce Committee and Representatives Eliot Engel, G.K. Butterfield, Gene Green, Bruce Braley, Jim Matheson, John Barrow, and Paul Tonko have written that "[a]ll carriers should have a meaningful opportunity to bid for spectrum" and have urged

the FCC to reject policies “that will jeopardize the ability of the auction to generate winning bids” to fund FirstNet and other priorities.

Others outside of Congress have joined the chorus. The National Emergency Number Association agrees that “permitting all bidders to participate will be the most effective way” to secure FirstNet its funding. And the Communications Workers of America has argued that “an open competition is the best way to serve the public interest” and “maximize[] auction proceeds.”

As you can tell, this isn't a group of people and organizations that have identical political views. Indeed, there are probably few other issues where they all agree. But it just goes to show that protecting the American people isn't a partisan or ideological concern. And that's why I need your support to make sure people understand the link between what we do in Washington and what you do to protect people in communities all across America, the link between maximizing net revenues for public safety and making FirstNet a reality.

One last point: Although I have focused on funding for FirstNet, that network is not the only national public safety priority that will be funded by the incentive auction. The Spectrum Act also set aside up to \$135 million for state and local public safety officials, up to \$300 million to advance the research and development of wireless public safety communications, and up to \$115 million for the deployment of next-generation 911 (NG911). Under the law, all of that funding will be realized only if the net revenues of our wireless auctions are at least \$27.95 billion. You don't need me to tell you that governments at all levels are tightening their fiscal belts. So we can't afford to jeopardize this funding for first responders, for public safety research, and for NG911. In other words, our goal can't be to raise just \$7 billion; we need to aim much higher.

Speaking of NG911, few people realize just how tied the legacy 911 system is to copper wires, landline phones, and 1970s technology. For example, the use of legacy routing equipment can lead to long call setup times, which means precious seconds are lost during a fire or home invasion. Or if a natural disaster disconnects a call center or increases call volumes above what the call center can handle, it's often hard to transfer the call and the caller's information to another location. In short, the legacy architecture of the system means that all too many 911 calls are delayed, dropped, or lost altogether.

I am hopeful that NG911's IP-based architecture will change all that. NG911 systems are built with redundancy in mind, and the use of IP means that calls can be rerouted seamlessly from one Public Safety Answering Point to the next without losing information about the call. And not only will NG911 be more resilient than traditional 911, it will also allow for more efficient public safety operations. Local authorities can redeploy those savings to hire more first responders and save more lives.

So I am bullish on what the digital age and the IP Transition mean for 911. But just because NG911 is on the horizon, it doesn't mean that we can ignore problems with the 911 system of today. And one of those problems happens too often when someone dials 911 in places like hotels, motels, office buildings, and schools that use multiline telephone systems (MLTS). A recent tragedy brought this home.

On December 1, Kari Rene Hunt Dunn met her estranged husband in a Marshall, Texas hotel room so that he could visit their three children, ages nine, four, and three. During that encounter, Kari's husband forced her into the bathroom and began stabbing her. Kari's nine-year-old daughter did exactly what every child is taught to do during an emergency. She picked up the phone and dialed 911. The call didn't go through, so she tried again. And again. And again. All in all, she dialed 911 four times—but she never reached emergency personnel. Why? Because the hotel's phone system required her to dial 9 to get an outside line. Tragically, Kari died as a result of this vicious attack. Kari's daughter behaved heroically under horrific circumstances. But the hotel's phone system failed her, her mother, and her entire family.

I am still shocked by this terrible event. When Americans dial 911, they expect and deserve to reach emergency personnel who can assist them in their time of need. How could our 911 system fall so short on that promise?

To understand how this could happen, I began an inquiry into the state of MLTS 911 last month. I sent letters to the CEOs of the ten largest hotel chains in America asking them what happened when someone dialed 911 in one of their properties. As I've found, the answer is complicated by the fact that the majority of hotels are owned by independent franchisees. But the American Hotel and Lodging Association, which represents nine of the top ten chains and many more hotels and motels, is working to obtain current data. I cannot report complete results yet but at least some of the responses have been encouraging. For example, Starwood Hotel & Resorts Worldwide has informed me that in all of the 134 hotels in the United States that it directly manages, a caller dialing 911 would reach someone. And in the wake of Kari's death, Starwood is working towards connecting 911 calls from each of those 134 hotels directly to a Public Safety Answering Point while at the same notifying a hotel employee that there's an emergency.

But this inquiry shouldn't be limited to industry. Public safety organizations need to have a seat at the table. That's why my office has been consulting with them about this problem. In fact, just a few weeks ago, I participated in a briefing of Congressional staff at which Jeff Cohen, APCO International's Chief Counsel for Law & Policy, offered valuable insights. So if you, too, have ideas on how to improve our 911 system, I hope you will share them with me—and soon. We cannot erase the tragedy that occurred in a Marshall, Texas hotel room. But we can work together to prevent such a tragedy from happening again. That's what I am determined to do. I'm confident that everyone here shares my belief that when an emergency strikes, people who dial 911 should be able to reach someone who can help, regardless of where they are located. Let's join together to make that vision a reality.

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In conclusion, it's safe to say that when it comes to public safety communications in the digital age, the stakes are high. Lives depend on the choices you make every day. I hope that we at the FCC can make those choices a little easier for you by funding FirstNet, supporting NG911 deployment, and fixing the problems of 911 on MLTS. I have learned a lot from the public safety community since I took office, and I expect to learn much more going forward. My door is literally and figuratively open to all of you, and I encourage you to share with me your ideas on how to improve public safety communications. Or if you are not in DC, reach out to me by email or on Twitter; my Twitter handle is @ajitpaifcc. I look forward to hearing from all of you as we strive to help keep the American people safe. Thank you.