

Before the
U.S. House of Representatives
Subcommittee on Communications & Technology

Hearing on “Promoting Broadband, Jobs, and Economic Growth Through
Commercial Spectrum Auctions”

Statement of
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Summary

Qualcomm, both on our own and as a member of a group of companies who sell wireless equipment including Alcatel Lucent, Apple, Cisco, Ericsson, Intel, Nokia, and Research in Motion, urges Congress to pass legislation to give the FCC authority to conduct voluntary incentive auctions to free up much-needed additional licensed spectrum for mobile broadband.

The FCC's October 2010 report found that by 2014, US mobile data traffic is likely to be 35 times the 2009 level. New technologies will not increase wireless capacity by 35 times. More licensed spectrum is needed for mobile broadband.

A number of steps must be taken, and are being taken, in parallel to help solve the spectrum crunch. These steps include things that the private sector is doing, such as developing and deploying new technologies, and things that the government is working on, such as reallocating under-utilized US government spectrum. But, these steps won't be nearly sufficient to solve the spectrum crunch. They won't increase capacity 35 times. To solve the problem, it is crucial that Congress enact legislation to allow the FCC to conduct voluntary incentive auctions to reallocate more licensed spectrum for mobile broadband.

Passage of legislation authorizing voluntary incentive auctions would be a win-win-win-win. The first win is for the sellers in an incentive auction. They own spectrum not allocated now for mobile broadband. They will win because the legislation would allow them to sell their spectrum to a buyer who wants to use it for mobile broadband, an option not allowed under current law. But, the legislation would not require anyone to sell spectrum.

The second win is for the buyers in an incentive auction. The buyers will win because they need more licensed spectrum. Even if it were legally permissible, they can't get enough spectrum by going one-by-one around the country in each and every local market negotiating with each TV station. They need the certainty and speed of a FCC-conducted incentive auction, in which the FCC auction would efficiently and quickly aggregate spectrum for purchase.

A third win is for the US Treasury. Voluntary incentive auctions will raise significant revenues for the federal government without raising anyone's taxes and without cutting any programs.

The fourth win is the most important of all. The real winners will be the American public. We all want our mobile devices to work all the time, wherever we happen to be. Giving the FCC the authority to conduct voluntary incentive auctions is essential.

Good afternoon, Chairman Walden, Ranking Member Eshoo, and Members of the Subcommittee. It is a special honor for me to testify here this morning. Thirty years ago, to the day, I began working as an intern to this very Subcommittee. What a great experience that was for a college student. I am here today on behalf of Qualcomm, a company that did not even exist thirty years ago. Five years after my internship here, Qualcomm was formed. Today, Qualcomm is the world's leading manufacturer of chips for cell phones, smartphones, and other wireless devices. Policies pursued by this Committee, in particular the move to spectrum auctions in the early 1990s, the reallocation of spectrum for the PCS auctions, and the DTV transition, have helped to fuel enormous growth in the US wireless industry.

At Qualcomm, we spend over \$2 billion each year in research and development to invent the most spectrally efficient technologies—to achieve the greatest capacity and the best performance out of every sliver of spectrum, licensed and unlicensed. We strive to do that because we know that spectrum is precious and expensive, based on our own experience with spectrum auctions. Although our main business is developing wireless technologies, licensing them to other companies, and selling chips for mobile devices based on those technologies, over the years, we have purchased licensed spectrum in auctions held in the United States, the United Kingdom, and India to facilitate the deployment of our new wireless technologies.

Qualcomm's technologies are used in the 3G and 4G devices that Americans just can't get enough of. We all want our mobile devices to work all the time and wherever we happen to be. That requires the use of licensed spectrum. Let me explain why I say that. We make chips that support Wi-Fi, Bluetooth and other unlicensed technologies to provide wireless connectivity in local areas, such as inside homes or on college or corporate campuses. In those settings, these chips enable wireless traffic to be off-loaded from the licensed spectrum that wireless carriers use for their 3G and 4G networks. This is an important and growing business for equipment vendors like Qualcomm, and we're excited about it. But, to provide ubiquitous, wide area wireless coverage all over the nation on a cost-effective and interference-free basis, licensed

spectrum is required.¹ And, that brings me to the topic of today's hearing because there is not enough licensed spectrum available to keep pace with the exploding demand for mobile broadband.

The FCC's October 2010 report found that by 2014, total US mobile data traffic is likely to be 35 times the 2009 level.² While Qualcomm and its industry partners are working on many exciting, innovative new wireless technologies to squeeze more capacity out of existing spectrum, we don't have any technology on the drawing board that can increase capacity by 35 times. Simply stated, more licensed spectrum is needed.³ The FCC doesn't have nearly enough new spectrum to auction to meet this gap. To promote broadband, jobs, and economic growth, we need to close this gap.

A number of steps must be taken, and are being taken, in parallel to help solve the spectrum crunch. These steps include things that the private sector is doing, such as developing and deploying new technologies, and things that the government is working on, such as reallocating under-utilized US government spectrum. But, these steps won't be nearly sufficient to solve the spectrum crunch. They won't increase capacity 35 times. To solve the problem, it is crucial that Congress enact legislation to allow the FCC to conduct voluntary incentive auctions to reallocate more licensed spectrum for mobile broadband.⁴

The legislation that Qualcomm supports would allow the FCC to conduct a two-sided auction composed of sellers who voluntarily decide to sell their spectrum because they think it would be

¹ See, e.g., Comments of QUALCOMM Incorporated, FCC Docket No. 09-51, filed June 8, 2009, at Pgs. 15-16; Comments of QUALCOMM Incorporated, FCC Docket No. 09-51, filed October 23, 2009, at Pgs. iii-iv, 32-34.

² See FCC Staff Technical Paper, Mobile Broadband: the Benefits of Additional Spectrum, October 2010, at Pg. 9.

³ See Comments of QUALCOMM Incorporated cited in n.1, supra.

⁴ See, e.g., Comments of QUALCOMM Incorporated, FCC Docket No. 10-123, filed April 22, 2011, at Pgs. i-ii, 1-3; Comments of QUALCOMM Incorporated, FCC Docket No., 10-235, filed March 18, 2011, at Pgs. 1-4.

worth more to a mobile broadband provider, and buyers who want to use the spectrum for mobile broadband. No one would be forced to participate as a seller or buyer in a voluntary incentive auction. But, unless current law is changed to permit voluntary incentive auctions, there is no way for the FCC to get the spectrum out of the hands of the sellers who are willing to sell and into the hands of the mobile broadband buyers. Current law permits a TV station owner to sell its spectrum only to someone else who will use the spectrum to run a TV station. A TV station owner cannot sell its spectrum to a buyer who will use it to provide mobile broadband.⁵

Voluntary incentive auction legislation would allow the FCC to run a two-sided auction with all the TV station owners who want to sell on one side, and all the mobile broadband providers who want to buy on the other.

Qualcomm, both on our own and as a member of a group of companies who sell wireless equipment including Alcatel Lucent, Apple, Cisco, Ericsson, Intel, Nokia, and Research in Motion, urges Congress to pass legislation to give the FCC authority to conduct voluntary incentive auctions to free up much-needed additional licensed spectrum for mobile broadband.⁶ Our group includes companies that fiercely compete against one another in the marketplace. We make equipment using both licensed and unlicensed spectrum. But we all agree on these three points: First, the spectrum crunch is real. Second, more licensed spectrum is necessary to solve the spectrum crunch. And, third, authorizing the FCC to conduct voluntary incentive auctions is essential to solve the spectrum crunch.

Passage of legislation authorizing voluntary incentive auctions would be a win-win-win. The first win is for the sellers in an incentive auction. They own spectrum not currently allocated for mobile broadband. Those who decide that their spectrum is more valuable for mobile broadband than in its current allocation will win because the legislation would allow them to receive the higher value in the auction by selling the spectrum so it can be used for mobile broadband. They don't have this option available to them under current law. But, the legislation would not require anyone to sell spectrum.

⁵ See 47 C.F.R. Section 73.624.

⁶ See Comments of QUALCOMM Incorporated, n. 4, supra; Comments of the High Tech Spectrum Coalition, FCC Docket No. 10-235, filed March 18, 2011, at Pgs. 1-4.

The second win is for the buyers in an incentive auction. The buyers will win because they will be able to buy what they need-- more licensed spectrum. Even if it were legally permissible, they can't get enough spectrum by going one-by-one around the country in each and every local market negotiating with each TV station. They need the certainty and speed of a FCC-conducted incentive auction, in which the FCC auction would efficiently and quickly aggregate spectrum for purchase.

A third win is for the US Treasury. Voluntary incentive auctions will raise significant revenues for the federal government without raising anyone's taxes and without cutting any programs.

The fourth win is the most important of all. The real winners will be the American public. As I said at the outset, we all want our mobile devices to work all the time, wherever we happen to be. Giving the FCC the authority to conduct voluntary incentive auctions is essential.

Thank you, and I look forward to answering your questions.