Testimony of

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Chairman Pryor, Ranking Member Wicker, and members of the Subcommittee, thank you for this opportunity to testify on behalf of CTIA – The Wireless Association[®].

As you begin today's hearing, I have just returned from CTIA 2013, our annual spring trade show, which draws thousands of attendees from around the nation and around the world. I wish you could have joined us. Had you been able to do so, you would have seen a great testament to the state of the wireless industry – a vibrant, dynamic ecosystem that is innovative and competitive at every level. It is also an environment in which U.S. leadership, and the competitive advantage that leadership confers upon our national economy, is a consistent and defining characteristic.

Perhaps the best indicator of the wireless industry's vibrancy and competitiveness is its capital investment record. If you believe, as I do, that businesses commit capital to markets that are open and competitive, and where they have a chance to earn a compelling return on what they invest, then the \$30 billion America's wireless carriers invested in their networks in $2012^{1} - a$ nine percent year-over-year increase from 2011 - is a very good sign. This investment, which according to Bank of America Merrill Lynch equals a quarter of global wireless investment last year², is all the more remarkable given the fact that the U.S. market includes just five percent of the world's wireless subscribers. It's a striking ratio: the U.S. comprises just five percent of the global wireless market but our investments outstrip that by five-fold.

And, while the numbers are impressive, last year was not an anomaly. The wireless industry has always been an active investor. Since 2001, wireless carriers in the U.S. have invested nearly \$300 billion in their networks, and this figure does not include more than \$35 billion in carrier expenditures on spectrum auctioned by the FCC.

This massive capital investment serves as a catalyst for what we at CTIA like to call "the virtuous cycle of wireless investment and innovation." Sustained capital expenditures facilitate the creation of networks capable of supporting greater speeds and functionalities, which, in turn,

¹ http://www.ctia.org/advocacy/research/index.cfm/AID/10316.

² Didier Scemama, "Global Wireless CapEx: Increase 2013 Forecast by 7%," Bank of America Merrill Lynch, January 6, 2013.

bring about new and more powerful and useful devices. The availability of new devices encourages the development of new applications and content, which help to drive consumer usage. And as usage grows, so too does the need for ever-more robust networks and more spectrum.

This "virtuous cycle" phenomenon is seen most vividly in the U.S. market, where the world's most advanced Long-Term Evolution deployments have produced more than 50 percent of the world's 4G subscribers.³ These subscribers use sophisticated devices that run on chips and operating systems developed by great American companies like Qualcomm, Apple, Google, and Microsoft. And these U.S.-derived networks and devices serve as the foundation for a fertile applications development industry – again, with its hub here in America – that is creating jobs and helping transform the way we consume information and engage in commerce.

America's wireless subscribers are the beneficiaries of this virtuous cycle. Carriers' fourthgeneration network deployments and device vendors' launch of advanced handsets and tablets in the U.S. market put American consumers at the vanguard of global wireless users, all in an environment where the Bureau of Labor Statistics Wireless Price Index has declined in each of the last five years, and by nearly 40 percent over the last 15 years.⁴ It is unquestionably the best story in the telecom sector.

³ As of March 2013, the U.S. was estimated to have 52.5% of the world's LTE subscribers, according to the Informa Telecoms & Media Group's World Cellular Information System (WCIS) database.

⁴ BLS Consumer Price Index Databases (not seasonally adjusted).



Source: BLS Consumer Price Index Databases (not seasonally adjusted).

As functionality has expanded and price has declined, adoption and usage have simultaneously exploded. Wireless subscriber units – that is, active devices associated with subscriptions or prepaid accounts – totaled 326.4 million separate devices at year-end 2012. That's equal to 102% of the total U.S. population, a greater and greater percentage of which is making their wireless phone their only phone. In Arkansas and Mississippi, for instance, more than 40 percent of the population is now "wireless-only."⁵ By comparison, just eight percent of the population in those states is "wireline-only."⁶

⁵ Centers for Disease Control and Prevention, "Wireless Substitution: State-level Estimates From the National Health Interview Survey, 2010–2011," National Health Statistics Reports No. 61, October 12, 2012.

⁶ Ibid.

Similarly, many people are making their wireless device their on-ramp to the Internet. This is particularly true among Hispanics and African-Americans, where ownership of a home computer lags the total population and the mobile device is a critical tool for closing the "digital divide." Data shows that Hispanics and African-Americans are significantly more likely to use their mobile devices to go online.⁷ Overall, 55% of wireless users (and 74% of those under age 50) now use their mobile devices to access the Internet⁸, with aggregate data usage now exceeding 1.5 trillion megabytes.⁹

Beyond changing the way that consumers communicate, the prevalence and power of 4G wireless networks is enabling whole new vertical markets to emerge. Mobile payment, intelligent transportation, smart grid and mobile health services and applications are made possible by the existence of robust, ubiquitous wireless broadband capabilities. Each of these opportunities can help transform our economy in positive ways, helping to drive additional investment and job creation. The last of these verticals, mobile health, is particularly exciting, as innovative m-health technologies and applications have enormous potential to improve the efficiency of health care delivery in the U.S. and around the world through more personalized care for patients, by reducing health care costs, and by eliminating geographic and economic barriers to the delivery of health services.

So, as I hope I've demonstrated, there are a lot of great things emanating from the U.S. wireless communications industry and the benefits of those developments are felt throughout our society. However, as you know, success is hard to achieve and can be still harder to maintain.

As a result, there is a vital role for policymakers – chiefly Congress, but also including the FCC, NTIA and other government entities – to complement the great work being done in the private sector with smart government policies that create an environment in which the private sector can work hard, innovate and advance U.S. leadership in this critical, ever-expanding industry.

⁸ Pew Research Center, "Teens and Technology 2013," March 13, 2013. Available at http://pewinternet.org/~/media/Files/Reports/2013/PIP_TeensandTechnology2013.pdf.

⁷ Pew Research Hispanic Center, "Closing the Digital Divide: Latinos and Technology Adoption," March 7, 2013. Available at http://www.pewhispanic.org/2013/03/07/closing-the-digital-divide-latinos-and-technology-adoption/.

⁹ http://www.ctia.org/advocacy/research/index.cfm/AID/10316.

Without question, the most important area where continued policy leadership is necessary is access to spectrum. In order to keep pace with the demand Cisco will describe in its testimony, the wireless industry needs access to more spectrum.

Spectrum is the resource on which all of the benefits that spring from wireless communications are founded. While manufacturers have tenaciously devised and used advanced technologies to get the most out of existing spectrum allocations and though carriers have innovatively used unlicensed Wi-Fi spectrum to "offload" traffic from carrier networks, those efforts are simply not enough. Carriers must have access to additional licensed spectrum in order to keep up with technological requirements and exploding consumer demand for mobile broadband.

Fortunately, Congress recognized this when it included provisions in last year's Middle Class Tax Relief and Job Creation Act which authorized the FCC to conduct incentive auctions that may result in the conversion of some television broadcast spectrum for wireless broadband use. The FCC is moving to implement that legislation and it is vitally important that the incentive auction process move forward expeditiously. It is equally important that the Commission get it right. But even if the incentive auction process yields the 120 MHz called for in the National Broadband Plan, that and other bands identified for auction by last year's legislation will only represent a portion of what is needed for the industry to meet consumers' and businesses' need for wireless bandwidth.

To address the difference between what the incentive auctions yield and what is necessary to achieve the five- and ten-year spectrum targets set by the National Broadband Plan, Congress should, as it has in the past, look to repurpose bands held by Federal users for commercial use. It has worked well before and it can work well again. According to a 2011 GAO study, the Federal government operates in approximately 70 percent of the spectrum below 3 GHz – 18 percent on an exclusive basis and 52 percent on a shared basis with non-government users. Just as it is appropriate to ensure that spectrum available to the private sector is being used efficiently and for the most highly valued services, the Federal government must evaluate the use of its own spectrum and free spectrum for commercial operations wherever possible. The far-reaching benefits to our national economy are too vital to do otherwise.

5

One frequency band currently occupied by Federal users that would be particularly helpful in allowing wireless companies to meet rapidly expanding demand is the 1755-1780 MHz spectrum. In the U.S., that band is currently used by the Department of Defense and other Federal agencies. However, the band is identified internationally for commercial mobile services and is used for that purpose throughout most of the world. Reallocation of the band would harmonize U.S. allocation of spectrum with international use, produce economies of scale and scope, and, importantly, make possible consumer use of their wireless devices outside North America by alleviating compatibility problems. The 1755-1780 MHz band is also immediately adjacent to existing domestic wireless commercial spectrum and would therefore fit seamlessly into the current mobile broadband spectrum portfolio, allowing for more immediate equipment development and deployment as well as facilitating easy migration of existing and developing technologies to these bands.

There is broad industry support for pairing the 1755-1780 MHz band with spectrum currently available for licensing at 2155-2180 MHz. Current law requires the 2155-2180 MHz band to be licensed by February, 2015 and it is our hope that the 1755-1780 MHz band can be made available so that the two bands can be auctioned together. Pairing these bands will maximize their value not only to industry, but also to the government. A study by the Brattle Group found that auctioning the 2155-2180 MHz band, the pairing could generate \$12 billion.¹⁰ Given the budget realities facing Congress and the country, a difference of that magnitude should not be ignored.

To be clear, CTIA recognizes that there are legitimate Federal spectrum needs that must be protected, and we believe that last year's improvements to the Commercial Spectrum Enhancement Act provide an appropriate framework for Federal relocation. Handled appropriately, relocation of Federal users from prime bands below 3 GHz can facilitate movement to state-of-the-art technology. This will reduce ongoing maintenance and procurement costs for Federal agencies and free up scarce resources under current budget

¹⁰ http://www.brattle.com/_documents/UploadLibrary/Upload938.pdf.

caps. Wireless carriers can then use the relinquished spectrum to provide services and grow the economy, resulting in a win-win-win outcome for Federal users, wireless carriers, and the American public. For these reasons, CTIA urges the Subcommittee to remain focused on spectrum policy.

Beyond a continued focus on bringing spectrum to market, two other areas where policy matters are regulation and taxation. With respect to the former, Congress established a deregulatory framework to govern wireless services twenty years ago and given the industry's record of investing, innovating, and competing, there is abundant evidence that charting that course was the right decision. Congress and the Commission should continue this long-standing commitment to "light touch" regulation and avoid imposing regulatory mandates that will raise costs and inhibit competitive differentiation among providers.

Another area where policy can have a significant impact is taxation, and though tax policy is not necessarily within the province of this Committee, it is so important that it merits mention in this discussion. Corporate tax reform, keeping Internet access free from taxation, and the idea that wireless service and digital goods should benefit from clear rules preventing discriminatory taxation are all issues this Congress may address, and getting these issues right is vitally important. We need to retire the regressive, inefficient system of telecommunications taxation designed for Ma Bell and replace it with a 21st century tax system that reflects the reality that communications connectivity is central to virtually every aspect of our economy.

Together, the right spectrum policies, regulatory restraint and sound tax policy can combine to support the investment and innovation that are pervasive in the wireless ecosystem, and which so demonstrably benefit the American public and economy. CTIA looks forward to working with you to achieve these objectives.

Thank you for your time today.

7