TESTIMONY

OF

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BEFORE THE

SUBCOMMITTEE ON ANTITRUST,
COMPETITION POLICY,
AND CONSUMER RIGHTS

COMMITTEE ON THE JUDICIARY

UNITED STATES SENATE

"AN EXAMINATION OF COMPETITION IN THE WIRELESS MARKET"

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Chairman Klobuchar, Ranking Member Lee, and members of the Subcommittee, thank you for the opportunity to testify about the dynamic, innovative and fiercely competitive U.S. wireless marketplace.

Today's U.S. wireless ecosystem offers consumers remarkable sets of choices – from infrastructure and equipment, to services and software, devices and applications. This broad foundation places us at the forefront of emerging mobile innovations, such as machine to machine connectivity (otherwise known as the "Internet of Things") and cloud-based services. Our U.S. wireless market stands as a global leader in innovation and choice, and is a key driver for national economic growth and maintaining America's competitive edge in the global economy.

By just about every metric, the U.S. wireless industry has exhibited consistent and ongoing dynamism, innovation, and competition.[1]

Perhaps the best indicator of the industry's vibrancy is its stellar capital investment record. In 2013, America's wireless carriers invested more than $34 billion in their networks. [2] This level of investment is, on average, four times more per subscriber than anywhere else in the world, about $104 per subscriber versus $26 per subscriber.[3] Since 2001 wireless carriers have made nearly $300 billion in sustained capital investment in the United States, and that figure does not include investments made in spectrum. [4]

Much of this sustained investment of late has been targeted for deployment of 4G LTE mobile broadband networks, which provide consumers and businesses with true broadband speeds in a mobile environment. As a result of U.S. carriers' investment in 4G LTE, the United States has almost 300 million wireless broadband subscriptions, more than double that of any other country, according to the Organization for Economic Co-operation and Development.[5] While U.S. consumers represent only 5% of the world's wireless connections, they comprise 50% of the world's LTE connections.[6] By year-end 2013, nearly 30% of all U.S. mobile connections were on LTE networks compared to 2% in the EU.[7] We expect that we will maintain this global leadership in 4G technologies for years to come.

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[1] Federal Communications Commission, 16th Mobile Competition Report, FCC 13-34, http://www.fcc.gov/document/16th-mobile-competition-report, released March 21, 2013

[2] Didier Scemama, et al., *2014 wireless capex: BRICs & Europe to pick up the slack*, Bank of America Merrill Lynch, Global Telecom Equipment, Jan. 13, 2014, at Table 2. *See also* Glen Campbell, *2014: The year ahead,* Bank of America Merrill Lynch, Global Wireless Matrix 4Q13, Jan. 8, 2014, at Tables 1 and 2.

[3] Ibid

[4] CTIA – The Wireless Association, Letter To Federal Communications Commission (GN Docket No. 09-51, WT Docket No. 13-135), November 13, 2013

[5] OECD, Total Fixed And Wireless Broadband Subscriptions By Country, June 2013

[6] CTIA – The Wireless Association, http://www.ctia.org/your-wireless-life/how-wireless-works/wireless-quick-facts

[7] Informa Telecoms & Media Group's World Cellular Information System (WCIS) Plus database, subscribers by geography and technology, (last visited Feb. 20, 2014)

LTE has transformed the communications landscape by providing customers with faster and more robust access to the Internet. Verizon was the first national carrier to deploy 4G LTE and this deployment is ensuring that consumers in rural areas have access to this cutting-edge broadband technology. Through its LTE in Rural America Program, Verizon signed 20 agreements with rural wireless operators to bring the benefits of high-speed 4G LTE technology to rural communities.[8] Under the program, rural carriers lease 700 MHz Upper C block spectrum from Verizon and build and operate their own 4G LTE radio networks; their customers can also roam on Verizon Wireless' 4G LTE network throughout the U.S., as well as on the networks of all the other rural carriers, while Verizon Wireless customers can roam on the rural networks. These networks cover 2.2 million people and more than 58,000 square miles, an area larger than the State of Illinois.[9] Today almost 300,000 people make use of these rural networks every day.

Ongoing investment in wireless broadband infrastructure has been a bright spot for the U.S. economy in a time of otherwise slow growth. Between 2007 and 2011, the U.S. wireless industry gained almost 1.6 million new jobs while total U.S. private sector jobs fell by 5.3 million.[10] In that same time, our industry generated $196 billion in economic activity around the world[11] and is driving innovations like the "app economy," which has created 519,000 jobs nationwide since the Apple iTunes and Android Market application stores first opened in 2008.[12] Today, the U.S. wireless industry is larger than the publishing, agriculture, hotels and lodging, air transportation, motion picture and recording, or motor vehicle manufacturing industries.[13]

This leadership in investment and growth is projected to continue. The Wireless Infrastructure Association recently released a study showing that projected capital investment in U.S. wireless infrastructure over the next five years will generate more than $1 trillion in economic growth and create 1.2 million new jobs. [14]

The beneficiaries of this remarkable marketplace are U.S. wireless consumers, who have a wide range of choices in networks, devices and applications, whose appetites for mobile services grow year over year, and who enjoy more and more services at declining unit costs.

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[8] Verizon Wireless, Comments Before The Federal Communications Commission In The Matter Of Implementation Of Section 6002(b) of the Omnibus Budget Reconciliation Act Of 1993, WT Docket No. 13-135, June 17, 2013

[9] Amal Singh, "Is Verizon A Better Option Than AT&T In The Rural Wireless Market?" Seeking Alpha, October 22, 2013

[10] CTIA – The Wireless Association, Letter To Federal Communications Commission (GN Docket No. 09-51, WT Docket No. 13-135), November 13, 2013

[11] Roger Entner, "The Wireless Industry: The Essential Engine Of US Economic Growth," Recon Analytics, April 2012

[12] Dr. Michael Mandel and Judith Scherer, MCP, MA, "The Geography Of The App Economy," CTIA – The Wireless Association and Application Developers Alliance, September 20, 2012

[13] CTIA – The Wireless Association, http://sitefinity.dmz.ctia.org/resource-library/facts-and-infographics/archive/economic-value-wireless-industry

[14] PCIA, "Wireless Infrastructure Investment Will Generate $1.2 Trillion In Economic Activity And Create 1.2 Million Jobs, Press Release, September 19, 2013

Consider that the U.S. now has more facilities-based wireless service providers that own and manage network equipment – with 180 – than any other nation in the world.[15] According to the FCC's last wireless competition report, 97.2% of the U.S. population is covered by three or more mobile voice carriers and 92.8% is covered by four or more mobile voice providers. Regarding mobile broadband, 91.6% of the U.S. population is served by three or more mobile wireless broadband providers and 82% are served by four or more providers.[16] Each of these companies is fiercely competing for customers. Sprint's CEO last year made clear that, "[t]here is no question [that] it's a competitive environment" in the wireless marketplace, as did T-Mobile's CFO, who said T-Mobile is, "[a]bsolutely positioned to, we think, thrive in a highly competitive market."[17]

Another indication of the level of competition in the market is the resources companies spend on marketing to try to win new customers. Between January and September 2013, telecommunications companies spent almost $7 billion on advertising, an 11.7% increase over the same period in 2012, and during a period when other consumer segments' advertising spends were decreasing.[18] These fierce marketing spends reflect the competitive struggle for wireless customers through a wide range of devices, applications, voice and data plans, as well as other innovative services.

The competitive state of the U.S. wireless marketplace has led U.S. consumers to use more mobile services than their international counterparts. When compared to the average European, in 2012, the average American consumer used five times more voice minutes and two times more data per connection than his or her European counterpart. U.S. consumers used 932 voice minutes per month, more than double the number of the next closest country, Canada, with a per capita usage of 381 minutes.[19]

In 2012 U.S. wireless data traffic increased by 70% to 1.468 trillion megabytes, up from 866.9 billion in 2011.[20] Meanwhile, the price trend for wireless data has been dropping dramatically – plummeting 93% from 2008-2012, from 46 cents per megabyte to only 3 cents per

[15] FCC Wireline Competition Bureau, Industry Analysis and Technology Division, Local Telephone Competition: Status as of December 31, 2012, Table 18, http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-324413A1.pdf
[16] Federal Communications Commission, 16th Mobile Competition Report, FCC 13-34, http://www.fcc.gov/document/16th-mobile-competition-report, released March 21, 2013
[17] Braxton Carter, T-Mobile CFO, T-Mobile US, Inc Goldman Sachs 22nd Annual Communacopia Conference, September 25, 2013
[18] Kantar Media, "Kantar Media Reports U.S. Advertising Expenditures Declined In Q3 2013, Due To Comparison Against High Olympics, Election Year Spend In 2012," Press Release, December 16, 2013
[19] CTIA The Wireless Association, Letter To Federal Communications Commission (GN Docket No. 09-51, WT Docket No. 13-135), November 13, 2013
[20] Ibid

megabyte.[21] I would also note that from December 2005 to January 2014, the wireless Consumer Price Index fell 10%, while the overall CPI for all items increased 18.9%.[22]

As customers embed mobile technologies ever more deeply into the way they work and live, the wireless industry is innovating to address these new consumer demands and create new solutions that make use of these powerful wireless broadband platforms.

Today, a number of different device manufacturers offer almost 300 different handsets; consumers also have a wide set of options for tablets and other mobile devices.[23] Over half of the phones in use today are smartphones,[24] and it's expected that 87% of connected device sales by 2017 will be tablets and smartphones – devices that didn't exist 10 years ago and that wouldn't exist without mobile broadband networks.[25]

The U.S. applications market is the global leader, and the number and type of applications available to those consumers have increased at a staggering rate. In 2012, consumers had access to more than 20 independent non-carrier mobile application stores, offering over 3.5 million apps for fourteen different mobile device operating systems.[26] Similarly, many wireless companies, including Verizon, are working with app developer communities to expand that ecosystem and meet consumer needs. Gartner estimates that by 2017 mobile app downloads will grow to more than 268 billion and generate over $77 billion in revenue.[27]

As with other transformative technologies we've seen evolve, mobile technologies are creating massive amounts of disruption and ripple effects across industries, creating new opportunities for productivity and growth. Mobile technologies are transforming the transportation, finance, energy, and agriculture sectors. Smart grids, smart cars, smart homes, and smart fields all take advantage of wireless technology. These mobile platforms are also helping to address some of our nation's most pressing challenges, such as provision of high-quality, affordable health care and access to world-class educational resources.

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[21] Maeghan Ouimet, "Infographic: The Staggeringly Huge Future Of Mobility," Visage Mobile, September 6, 2012

[22] U.S. Department of Labor, Bureau of Labor Statistics, Consumer Price Index: All Urban Consumers – (CPI-U), U.S. City Averages, Wireless Telephone Services (Series ID CUUR0000SEED03) and Consumer Price Index: All Urban Consumers – (CPI-U), U.S. City Averages, All Items Accessed February 20, 2014

[23] Federal Communications Commission, 16th Mobile Competition Report, FCC 13-34, http://www.fcc.gov/document/16th-mobile-competition-report, released March 21, 2013

[24] Mark Rogowsky, "More Than Half Of Us Have Smartphones, Giving Apple And Google Much To Smile About," *Forbes*, June 6, 2013

[25] Louis Columbus, "IDC: 87% Of Connected Devices Sales By 2017 Will Be Tablets And Smartphones," *Forbes*, September 12, 2013

[26] CTIA The Wireless Association, Letter To Federal Communications Commission (GN Docket No. 09-51, WT Docket No. 13-135), November 13, 2013

[27] Tony Danova, "Gartner: Mobile Apps Will Have Generated $77 Billion In Revenue By 2017," Business Insider, January 23, 2014

By utilizing innovative in-home broadband and Internet-based technologies and mobile solutions, we can change the model for patient care and help eliminate healthcare disparities, improve access and enable better chronic disease outcomes.

LTE mobile broadband can handle the bandwidth demands of transmitting MRIs, X-Rays and CAT scans. Cloud platforms enable safe, private means for patients, doctors, and insurance companies to exchange information and share medical records. Mobile-based health services can monitor blood pressure, medication intake, blood sugar levels, and heart rate, and send the real-time updates to doctors.

These types of technologies offer a great opportunity to make America healthier, while also saving as much as $165 billion a year according to some estimates.[28]

In the field of education, the technology content of every business and every job is rising. Yet interest and proficiency in science, technology, engineering or math – STEM subjects – is stagnant in the U.S. Verizon is leveraging its mobile technologies to empower teachers and students to focus on building proficiency in STEM subjects. We've also launched the first national program for integrating mobile technology into classrooms to improve STEM education for underserved students, and to train teachers to use mobile technology to improve learning outcomes.

Even in these areas of philanthropy, we are seeing competition across our ecosystem, driving new strategies and providing teachers and students with resources toward a shared goal of putting in place a strong, well-educated workforce to sustain U.S. leadership and competitiveness in the global high-tech marketplace.

This fiercely competitive, highly innovative wireless ecosystem has not developed in a vacuum. Public policy has played a part. Back in 1993, when Congress first sought via the Omnibus Budget Reconciliation Act to update the policies for the nascent wireless market, policymakers authorized spectrum auctions for mobile use and pre-empted state regulation of mobile services.

These decisions paved the way for nation-wide mobile products and services and plans rather than a fragmented market, such as the one that is today hindering Europe's mobile broadband market. It also laid the groundwork for a wireless policy framework that focused on meeting consumer demands without onerous rules or regulations that might have hampered innovation and experimentation in the marketplace.

Twenty years later, our industry stands as a testament to that light touch regulatory model. Where issues have arisen, such as number porting, location-based services or mobile phone directories, our industry has worked through consensus with policy makers to address

[28] Benton Foundation, benton.org/initiatives

them.[29] Of course we also should not underestimate the powerful influence of our customers, who make their sentiments clear and very much drive this market.

That said, there are challenges our industry faces. Consumer privacy and security are at the top of the list. If we want consumers to increasingly embed mobile technology in their lives – whether for social purposes, entertainment or for personal finance – they must be confident that their personal information is safe and being protected. Likewise, device security is an issue that our industry has been focused on for some time.[30]

Without question, however, the most important area where continued policy leadership is necessary is access to spectrum. Without the lifeblood of this sector – spectrum – our global leadership in wireless innovation, our sustained investment, and our ability to meet consumers' appetite for faster mobile speeds and increased access for multiple mobile devices, is at risk.

As you are aware, spectrum can't be created, only allocated. And reallocating spectrum is difficult due to restrictions on how the spectrum can be used and sold. As wireless adoption increases and mobile data usage explodes, much more bandwidth is needed to upgrade networks, serve additional consumers and meet demand.

We are appreciative of Congress' efforts with the Obama Administration and the F.C.C. to identify and allocate 500 megahertz of additional spectrum within the next ten years.[31] This would double the amount of available spectrum.[32] But the amounts being brought to auction today and those being discussed for future auctions barely put a dent in the 500-megahertz goal. Large swaths of unused or underutilized spectrum that are currently assigned to federal government agencies aren't being used efficiently and should be identified and auctioned. Given the nine-year lead-time to bring spectrum to market, this must be a priority.

We must also look at the auction process, which should be fair and transparent, open to all bidders, and not weighed down by conditions that might limit the number of bidders or the amount of spectrum brought to market. Finally, we need a streamlined approach that allows those firms already holding underused or dormant spectrum to sell it to those who can best put that spectrum to use for consumers.

A comprehensive spectrum policy, coupled with continuation of the successful light touch regulatory model to address other challenges our industry faces, will serve all players in the wireless marketplace. Competition will continue to flourish, leading to even greater amounts

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[29] CTIA – The Wireless Association, Comments Before The Department Of Commerce In The Matter Of Information Privacy And Innovation In The Internet Age (Docket No: 100402174-0175-01), Washington, DC, September 2010

[30] CTIA – The Wireless Association, http://www.ctia.org/policy-initiatives/policy-topics/cybersafety-and-cybersecurity

[31] U.S. Department Of Commerce, "Plan And Timetable To Make Available 500 Megahertz Of Spectrum For Wireless Broadband," October 2010

[32] Jennifer Martinez, "Wireless Airwaves Would Double Under Obama Plan," Los Angeles Times, June 29, 2010

of investment, more choices and value for consumers from enhanced services and greater levels of innovation, all hallmarks of a wireless marketplace that so demonstrably benefit the American consumer and the U.S. economy.

Thank you again for the opportunity to testify, and I welcome your questions.