

Testimony of  
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on

“Coordinating Future Investments in Broadband”

before the  
House Agriculture  
Subcommittee on Livestock, Rural Development and Credit

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Chairman Crawford, Ranking Member Costa, and Members of the Subcommittee, thank you for the opportunity to participate in today's hearing. My name is Christopher Guttman-McCabe and I serve as Executive Vice President at CTIA – The Wireless Association<sup>®</sup>. CTIA represents the wireless carriers, equipment vendors, and software and content developers that drive America's global leadership in wireless broadband.

Today, American wireless users sit at the epicenter of the wireless broadband revolution. Driven by vibrant competition, massive investment<sup>1</sup>, and successful light-touch regulation, the U.S. wireless industry has deployed 4G LTE technology at a rapid pace and now offers this world-class wireless broadband service to 95 percent of the American people. In fact, despite being home to just five percent of the world's wireless subscribers, the U.S. claims 45 percent of the world's 4G users.<sup>2</sup>

As a result of the near ubiquitous deployment of 3G and now 4G technologies and the convenience of wireless networks, a growing number of Americans have chosen to abandon traditional telephone service and go "wireless-only." In fact, the Centers for Disease Control's National Health Interview Survey recently released data finding that for the second 6 months of 2013, two in every five households (41.0%) did not have a landline telephone but did have at least one wireless telephone.<sup>3</sup> And nowhere, Mr. Chairman, is this phenomenon more true than in Arkansas, where almost 50 percent of the adult population lives in a "wireless-only"

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<sup>1</sup> In 2013, U.S. wireless carriers invested approximately \$34 billion in their networks. See CTIA, *US Invests Four Times More in Networks* (March 13, 2014), available at <http://www.ctia.org/resource-library/facts-and-infographics/archive/us-investment-networks> ("CTIA March 2013 Wireless Facts") (citing Didier Scemama, *et al.*, *2014 Wireless Capex: BRICs & Europe to Pick Up the Slack*, Bank of America Merrill Lynch, Global Telecom Equipment, at Table 2 (Jan. 13, 2014); Glen Campbell, *2014: The Year Ahead*, Bank of America Merrill Lynch, Global Wireless Matrix 4Q13, at Tables 1 and 2 (Jan. 8, 2014) ("Global Wireless Matrix").

<sup>2</sup> According to the Informa Telecoms & Media Group's WCIS database, the U.S. and its territories accounted for 45% of global LTE subscribers as of the first quarter of 2014. The United States is home to 112 million LTE subscribers, while the next nine countries combined are home to 111 million.

<sup>3</sup> <http://www.cdc.gov/nchs/data/nhis/earlyrelease/wireless201407.pdf>, at Table 1.

household.<sup>4</sup> Similarly, an estimated 45 million Americans use their wireless device as their primary on-ramp to the Internet.<sup>5</sup>

As wireless networks have become more ubiquitous, reliable, and robust, they have become platforms not only for telephone service and Internet access, but also building blocks upon which other segments of the economy rely to innovate and drive more efficient outcomes in their respective fields. This is certainly true in agriculture.

Whether through the use of GPS-assisted technology or terrestrial wireless sensor technology, wireless is helping to provide farmers with real time feed-back on a number of different crop and site variables.<sup>6</sup> This data helps to drive increased efficiency and improve yields.<sup>7</sup> On-board telematics powered by commercial wireless broadband networks guide farm equipment to reduce time in the field and cut fuel costs, while simultaneously reducing maintenance costs and time lost to repairs.<sup>8</sup> And just as many of us rely on mobile apps to check a sports score or bank balance, agricultural professionals are using apps to perform a variety of tasks, including to access farm and field information, check market prices, track cattle, and even help consumers locate locally grown farm products and farmers markets.<sup>9</sup> Commercial wireless broadband networks stand behind each of these activities.

Wireless is an increasingly important part of rural communities, and not only for those involved in agriculture. Rural consumers and businesses of all sizes benefit from access to competitive services and world-class devices. CTIA's carrier members, large and small, are investing to bring

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<sup>4</sup> <http://www.cdc.gov/nchs/data/nhsr/nhsr070.pdf>, at 5, column 2, showing data for Jan.-Dec. 2012, with Arkansas at 49.0 percent.

<sup>5</sup> Maeve Duggan and Aaron Smith, "Cell Internet Use 2013," Sept. 2013, Pew Research Center, at [http://www.pewinternet.org/files/old-media//Files/Reports/2013/PIP\\_CellInternetUse2013.pdf](http://www.pewinternet.org/files/old-media//Files/Reports/2013/PIP_CellInternetUse2013.pdf), and U.S. Census, American FactFinder, at <http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=bkmk>.

<sup>6</sup> <https://www.youtube.com/watch?v=pldvLV0xjmg>, and <http://sourcetechnology.com/2013/06/the-use-of-wireless-sensor-networks-in-precision-agriculture/>.

<sup>7</sup> <http://www.businessinsider.com/sc/wireless-farming-is-helping-feed-the-world-2014-7>.

<sup>8</sup> <https://www.youtube.com/watch?v=YbYjUH2uKXQ>.

<sup>9</sup> <http://www.farmmanagement.pro/mobile-agriculture-apps-offered-in-2013/>, [http://www.agweb.com/article/nutrient\\_deficiency\\_app\\_available/](http://www.agweb.com/article/nutrient_deficiency_app_available/), <http://eprretailnews.com/2014/07/09/morrison-became-the-first-supermarket-to-launch-free-app-for-cattle-farmers-aimed-at-simplifying-livestock-management-09987654321232345456/> and <http://www.picknproducts.org/>.

cutting-edge wireless service to rural communities. In addition to the widespread deployment of LTE described above, these initiatives include AT&T's planned deployment of fixed wireless service that uses advanced technology, dedicated spectrum, and professional home installations to provide a consistent and reliable high-speed broadband experience<sup>10</sup>, and efforts by smaller carriers like Bluegrass Cellular in Kentucky to deploy its wireless Internet GetSetGo™ branded broadband product and services<sup>11</sup> to markets like Clarksville, Tennessee and Hopkinsville, Owensboro, Danville and Richmond, Kentucky, and CellCom of Green Bay, Wisconsin working to make wireless telehealth solutions for diabetics available across Wisconsin.<sup>12</sup>

While we're excited about the contributions the wireless industry can make to helping U.S. agriculture and rural America thrive, we're just scratching the surface of what's possible. But building on these advances requires the right policies here in Washington. America's farmers may not know that they care about the intricacies of spectrum allocation, the challenges of tower siting, or the impact of FCC regulation, but they do. This is true because the ability to deliver the sort of services on which the farming community is relying and will continue to rely is dependent on the wireless industry having access to spectrum, and the ability to build the networks needed to put it to use, without the burden of unnecessary constraint or cost imposed through the regulatory process.

Spectrum is the key input into the wireless business. For us, it is the oxygen that fuels everything else. For this reason, ensuring that there is a sufficient, predictable supply of spectrum for commercial use is at the top of CTIA's agenda. Thanks to Congress' work in the 2012 Middle Class Tax Relief and Job Creation Act, there are two upcoming auctions that will

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<sup>10</sup>Statement of John T. Stankey, Group President and Chief Strategy Officer, AT&T, before the Senate Commerce Committee, July 16, 2014. Available at [http://www.commerce.senate.gov/public/?a=Files.Serve&File\\_id=d2db74ae-73d4-4116-8d2f-25def1182f14](http://www.commerce.senate.gov/public/?a=Files.Serve&File_id=d2db74ae-73d4-4116-8d2f-25def1182f14), at 4. The referenced deployment is predicated on regulatory approval of AT&T's proposed acquisition of DIRECTV, a transaction on which CTIA takes no position.

<sup>11</sup> The GetSetGo™ wireless Internet service initial product offering uses an LTE WiFi router that integrates Wi-Fi 802.11 b/g/n and Ethernet ports in an easy and simple-to-use package. The company projects that GetSetGo customers will experience download speeds of 5 to 12 Mbps and 2 to 5 Mbps for uploading data.

<sup>12</sup> <http://www.nsightnews.com/Press-Releases/cellcom-partners-with-telcare-to-offer-diabetes-management-solution.html>.

bring additional spectrum to market for CTIA's members.<sup>13</sup> These auctions are critical to meeting the burgeoning demand for wireless broadband, which Ericsson<sup>14</sup> and Cisco<sup>15</sup> suggest will continue, and to maintaining the United States' position as the world's leader in advanced wireless services. Congress therefore must encourage the Federal Communications Commission to do everything necessary to ensure that these auctions are successful and on schedule.

Once spectrum has been auctioned, it must be put to work. That means that networks must be deployed. To facilitate the deployment of wireless network infrastructure, industry needs a predictable, expedited process for seeking siting approvals. This is true for the construction of towers, as well as for the process of deploying antennae on existing towers or structures and for the use of small cell technologies. New cell sites can expand the available coverage area for consumers, and increase a network's ability to provide the kinds of services consumers want and expect. To support these efforts, the Federal Communications Commission must complete work on its Wireless Infrastructure proceeding<sup>16</sup>, which flowed from the 2012 law authorizing the auctions. Additionally, because towers have to connect to the larger network, Congress and the Federal Communications Commission must continue to work to remove barriers to the deployment of fiber infrastructure.

Finally, with the right spectrum and siting policies in place, policymakers must continue to support a light-touch regulatory regime for wireless. Wireless has benefited from a comparative lack of regulation over the last twenty years, and the resulting deployment and consistent technological advancement validate the efficacy of this approach. Regulators thus should not try to prejudge how the wireless industry will evolve or impose upon it rules designed for wireline networks in a monopoly environment.<sup>17</sup> Similarly, policymakers should not bias the FCC's Universal Service programs or the Rural Utilities Service loan programs in favor of any

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<sup>13</sup> These include the AWS-3 auction scheduled for late 2014 and the broadcast incentive auction scheduled for mid-2015.

<sup>14</sup> Ericsson, *Ericsson Mobility Report on the Pulse of the Networked Society, Interim Report* (Feb. 2014), available at <http://www.ericsson.com/res/docs/2014/ericsson-mobility-report-february-2014-interim.pdf> and

<sup>15</sup> Cisco, *Cisco Visual Networking Index: Global Mobile Data Traffic Forecast Update, 2013–2018*, at 10 (Feb. 5, 2014) ("Cisco Report"), available at [http://www.cisco.com/c/en/us/solutions/collateral/service-provider/visual-networking-index-vni/white\\_paper\\_c11-520862.pdf](http://www.cisco.com/c/en/us/solutions/collateral/service-provider/visual-networking-index-vni/white_paper_c11-520862.pdf).

<sup>16</sup> *Acceleration of Broadband Deployment by Improving Wireless Facilities Siting Policies*, WT Docket No. 13-238.

<sup>17</sup> <http://www.ctia.org/docs/default-source/fcc-filings/140718-ctia-open-internet-comments.pdf?sfvrsn=0>.

particular technology. Consumer preference, not government fiat, should guide network deployment decisions. Vibrant competition and regulatory humility will produce the best outcomes for consumers.

Thank you again for the opportunity to participate in today's hearing. CTIA looks forward to working with the Subcommittee to advance the deployment of wireless service across all of America.