Testimony of
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CTIA – The Wireless Association®
on "Promoting Broadband, Jobs and Economic Growth
through Commercial Spectrum Auctions"
Before the House Subcommittee on Communications and Technology
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On behalf of CTIA – The Wireless Association® ("CTIA"), thank you for the opportunity to speak to you today about "Promoting Broadband, Jobs and Economic Growth through Commercial Spectrum Auctions." CTIA believes these objectives are achievable and mutually reinforcing. For that reason, we urge you to act at the earliest possible date to enact legislation that will authorize incentive auctions and allow additional licensed spectrum to be made available for commercial wireless use.

Today, the United States is the world's clear leader in wireless broadband. Although the United States is home to just 4.6 percent of the world's population and 5.8 percent of global wireless subscribers, the U.S. claims 20.4 percent of global high-speed wireless broadband (3G and 4G) subscribers.[1] This leadership helps to create a competitive advantage for the United States, but to maintain this advantage we need to work with you to ensure that there is a sufficient pipeline of spectrum available to meet the exploding demand for wireless broadband services. We urge you to address this with dispatch, as delay puts at risk not only our world leadership in this critical industry but also lost or delayed investment, innovation, and productivity that are critical to our economy.

The growth in the demand for mobile broadband and the corresponding need for additional spectrum has been well-documented both by the government and respected private sector parties like the Yankee Group, CODA, and Kleiner Perkins. Even conservative estimates such as Cisco's recently released Visual Networking Index project U.S. mobile data traffic to grow by a factor of 21x between the end of last year and 2015.[2] This demand is being driven by consumers' migration from feature phones to smartphones and tablets that, while employing advances in spectral and computing efficiency, allow consumers to demand more and thus strain wireless networks in an unprecedented manner. The evolution of machine-to-machine

communications will only exacerbate this challenge. Efficiency gains and infrastructure investment will help, and our members are committed to both, but neither will be sufficient to answering the challenge we face in delivering what we believe is the critical infrastructure for the economy of the 21st century.

The good news is that there are ways to help meet the need for additional spectrum. By authorizing incentive auctions and repacking the bands allocated for television broadcasting, directing NTIA to facilitate access to bands currently occupied, but often underutilized, by government users, and enacting improvements to the spectrum relocation process, Congress can provide the wireless industry with a path to help America continue to stay ahead of its Asian and European competitors in this critical industry.

CTIA believes that as much as 120 MHz of spectrum for next generation wireless broadband services could be made available if Congress authorizes voluntary incentive auctions and the FCC repacks broadcasters into a new television core. Broadcasters opting to participate in incentive auctions, share channels, or adopt a cellularized architecture[3], could be compensated from auction revenues. Broadcasters choosing not to participate could be held harmless in the repacking process through the allocation of a modest amount of auction revenues to relocate stations to channels from 7 to 30. Such a process would preserve over-the-air broadcasting while enabling a significant and valuable tranche of spectrum to be auctioned under a flexible use approach likely to enhance wireless broadband offerings. The incentive auction approach could, and should, apply to MSS spectrum as well.

While authorizing incentive auctions is critical, it also should not be the sole focus in the effort to create a more reliable and predictable spectrum pipeline. CTIA also urges Congress to direct NTIA to facilitate access to bands currently devoted to government users. In particular, we believe the bands between 1755 and 1850 MHz, and more specifically the bands between 1755 and 1780 MHz, especially if paired with spectrum located between 2155 and 2180 MHz, provide an excellent space for mobile broadband offerings and would be likely to command significant value for the Treasury at auction. By encouraging federal users to maximize their

efficiency and rely on commercial providers wherever possible, Congress can help ensure that additional spectrum can be repurposed for commercial use.

As federal allocations are repurposed for commercial use and auction, it also would be wise to make some adjustments to the relocation process enabled by the Commercial Spectrum Enhancement Act (CSEA) crafted by then-Subcommittee Chairman Upton during the 108th Congress. The CSEA is a significant improvement in the framework for relocating government users, but we have learned from the experience of the AWS-1 relocations that minor changes could improve the process for both the government and the private sector. Three specific improvements we urge are for the CSEA framework to be expanded to permit agencies to use relocation funds to engage in spectrum planning activities, for better pre-auction information about relocation costs and schedules to be made available, and for the agency relocation process to be subject to deadlines. These changes will enhance the efficiency and transparency associated with the relocation process, with the likely result being not only a smoother process but also enhanced auction revenues since bidders will have access to more information before going to auction.

Taking these steps will produce manifest benefits for the nation. The last two auctions, of the AWS-1 bands in 2006 and the 700 MHz bands in 2008, produced more than $32 billion for the U.S. Treasury. While I cannot project what future auctions might produce, the bands discussed above have significant value and would likely be highly sought after at auction. Auction revenues, however, are just one of the benefits that can flow from facilitating the movement of spectrum to its highest and best use.

Once spectrum is in the hands of those who value it, significant investment, entrepreneurial activity, and productivity will result. Since 2006, CTIA's carrier members have been directly responsible for nearly $111 billion in network investment (net of any amounts paid to acquire spectrum licenses). Because a dollar invested in wireless deployment is estimated to result in as much as $7 to $10 in expanded GDP,[4] this past investment has contributed to keeping the U.S. economy afloat during a difficult period. Going forward, wireless investment and this multiplier will be critical to helping create sustainable economic growth.

Perhaps more importantly, in this time of persistently high-unemployment, we believe that unlocking additional spectrum can help to create new employment opportunities. From the forging of steel for new towers and the construction of additional cell sites to the development of new network equipment and the writing of the next "must have" application, bringing spectrum to market will create thousands of American jobs. Some economists estimate that the job growth related to the investment in next generation wireless technologies could be as high as two-hundred thousand positions,[5] and that estimate does not account for positions in adjacent fields as wireless becomes a key input into areas such as health care, energy, education, transportation and logistics.

As the Chairman of the Federal Communications Commission noted in March, wireless broadband "is being adopted faster than any computing platform in history, and could surpass all prior platforms in their potential to drive economic growth and opportunity."[6] Enabling the next generation of service and ensuring our world leadership in wireless should be a national imperative. Done properly, we can make needed spectrum available for ubiquitous wireless broadband, treat relocated broadcasters and government users fairly, produce significant revenue for the U.S. Treasury, and help grow the U.S. economy. CTIA looks forward to working with you to achieve these objectives.

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[1] Informa Telecoms and Media Group, WCIS Database, accessed May 26, 2011.
[2] Cisco Visual Networking Index, March 2011, at slide 9.
[3] See Comments of Ericsson, ET Docket 10-235, March 18, 2011, suggesting that it is possible to support TV services with 84 MHz of spectrum via LTE MBMS, in contrast to the nearly 300 MHz used by the ATSC TV broadcast system.
[4] Larry Summers, "Technological Opportunities, Job Creation, and Economic Growth," Remarks at the New America Foundation, June 28, 2010. Available at http://www.whitehouse.gov/administration/eop/nec/speeches/technological-opportunities-job-creation-economic-growth.
[5] Robert Crandall and Hal Singer, "The Economic Impact of Broadband Investment," March 2010, at 3.
[6] FCC Chairman Julius Genachowski, Remarks as Prepared for Delivery, CTIA Wireless 2011, March 22, 2011, at 5. Available at http://transition.fcc.gov/Daily_Releases/Daily_Business/2011/db0322/DOC-305309A1.pdf.