

**Testimony of Steve Largent, President and CEO, CTIA – The Wireless Association®
on H.R. 3125 and H.R. 3019
before the
House Subcommittee on Communications, Technology, and the Internet
December 15, 2009**

On behalf of CTIA – The Wireless Association® (CTIA), thank you for the opportunity to share the wireless industry’s views on the Radio Spectrum Inventory Act (H.R. 3125) and the Spectrum Relocation Improvement Act (H.R. 3019). These complementary bills are much-needed bookends for a process that will enable additional spectrum to be made available for wireless broadband and other services.

Today, the U.S. is the world leader in wireless broadband. While having less than seven percent of global wireless subscribers, the U.S. is home to 21.3 percent of global 3G subscribers. Our 112 million 3G subscribers are more than any other country, and more than the third, fourth, fifth, and sixth countries combined.¹ Additionally, the most advanced handsets, which are manufactured by global companies and could be launched anywhere in the world, routinely debut in the U.S. market. As a bipartisan pair of former NTIA Administrators recently noted, the convergence of mobile wireless services and high-speed Internet access and the evolution of handsets from telephones to powerful hand-held computers promises to transform almost all aspects of the way we work, learn, deliver health care, manage our energy consumption, and enhance our public safety.² The key to translating this promise into reality is access to spectrum.

As a part of CTIA’s analysis of how much spectrum will be needed to facilitate the continued evolution of the wireless ecosystem, we reviewed a study³ by the International Telecommunication Union (ITU) that concluded that developed countries will need at least 1300 MHz of spectrum for commercial wireless operations by 2015. Since the United States currently has only about 500 MHz of spectrum available for commercial wireless services,

¹ Informa Telecom & Media Group, World Cellular Information Service database, accessed December 9, 2009.

² Larry Irving and John Kneuer, “Turbocharging the Wireless Engine,” Washington Times, September 6, 2009, available at <http://www.washingtontimes.com/news/2009/sep/06/turbocharging-the-wireless-engine/>.

we have asked the FCC to identify up to 800 MHz of spectrum that can be reallocated to help us meet the ITU's benchmark.

Outside the United States, many of our trading partners and international competitors are already taking steps toward this goal. In addition to their existing commercial allocations, Great Britain has identified an additional 355 MHz that will be made available for commercial use, Germany 340 MHz, Italy 254 MHz, and Japan 165 MHz. Furthermore, China is looking to make a total of at least 1000 MHz available for mobile communication, and the Indian government has opened a proceeding to determine what additional spectrum may be necessary to enable the widespread deployment of wireless and mobile broadband across that country. Here in the United States, we have just 50 MHz in the pipeline, which suggests that we have a great deal of work to do if we are to retain our position as the world's leader. A properly constructed inventory effort is a sound place to start.

The inventory envisioned by H.R. 3125 is only the first step, however. Once that inventory is complete, policymakers must be ready to act immediately to reallocate spectrum identified by the inventory as un- or under-utilized for advanced wireless services. That will mean looking at all users and uses, including government spectrum usage. It is likely that underutilized spectrum currently assigned to the federal government will be a critical source for spectrum that can be repurposed. A comprehensive spectrum inventory may also identify underutilized non-government spectrum -- whether currently allocated or licensed to broadcasters, satellite providers, or others -- that can be put to a higher and better use as commercial mobile wireless spectrum. Accordingly, the inventory legislation should be augmented to direct NTIA and the FCC to not just conduct an inventory, but also to make specific recommendations about bands that can be made available for reallocation.

CTIA makes this suggestion in light of the lengthy nature of the process for identifying frequency bands for commercial mobile use, enacting legislation necessary for reallocation of those frequencies, auctioning such frequencies, and issuing licenses. For example, consider

³ "Estimated Spectrum Bandwidth Requirements for the Future Development of IMY-2000 and IMT-Advanced," Report ITU-R M2078, 2006.

how long it took to issue licenses for the 700 MHz and Advanced Wireless Service (AWS) bands.

In the Omnibus Budget Reconciliation Act of 1993 (OBRA93), Congress required the federal government to vacate at least 200 MHz of spectrum and permitted the FCC to conduct auctions for commercial use of spectrum. Later that year, then Subcommittee Chairman Markey introduced a bill (H.R. 3636) that would have required broadcasters to return one of their two licenses once broadcasters transitioned to digital television. With the enactment of the Telecommunications Act of 1996, Congress imposed this requirement. In the Balanced Budget Act of 1997 (BBA97), Congress created an explicit framework to determine when broadcasters would be required to return their spectrum used for analog broadcasts, and required that portions of the 700 MHz band be auctioned for commercial use. The FCC auctioned a portion of the 700 MHz band in 2002, though broadcasters had not vacated the band.

In the Deficit Reduction Act of 2005, Congress required the entire 700 MHz band, excluding frequencies made available for public safety, to be auctioned by January 28, 2008. The auction began on January 24, 2008 and concluded on March 18, 2008, though the D Block did not meet the reserve price and has not been reaucted. The FCC granted 64 of the 700 MHz licenses on June 26, 2008, almost 15 years after Congressman Markey introduced his bill to require broadcasters to return their licenses after transitioning to digital television.

The AWS frequency bands (1710-1755 MHz and 2110-2155 MHz) were identified for auction in BBA97. The 1710-1755 MHz band had previously been identified by the Commerce Department pursuant to the report required by OBRA93 (in which the Secretary was required to determine which frequencies occupied by federal government operations could be reallocated for commercial use). While Congress attempted to facilitate the relocation of government users of the band by permitting voluntary relocation, it was not until Congress enacted the Commercial Spectrum Enhancement Act of 2004 (CSEA) that procedures were implemented to fund such relocation. That law also produced the AWS auction, which began on August 9, 2006 and ended on September 18, 2006. The FCC

awarded approximately half of the AWS licenses on February 27, 2007, almost 14 years after enactment of OBRA93 and nine and a half years after BBA97.

The history of these auctions demonstrates that it can take a decade or more to reallocate spectrum for commercial use and put such spectrum in the hands of providers of commercial mobile services. Given the exploding demand for mobile broadband, CTIA believes we must move more quickly than was the case with either of those previous efforts if we are to stay ahead of consumer and enterprise demand.

We recognize that there will be critics of the effort to move forward with an inventory and reallocation of spectrum. They will claim that commercial carriers should be more efficient with the spectrum already available, that we can build our way out of the problem, or that we have already seen an expansion in the amount of spectrum available for commercial services through the recent AWS and 700 MHz auctions. There are sound reasons why the Subcommittee should dismiss these criticisms.

First, while it is true that efficiency gains can help carriers to make better use of existing allocations, U.S. carriers already lead the world in spectral efficiency. On a per megahertz of spectrum basis, U.S. carriers collectively serve more consumers than are served by carriers in other countries. In fact, U.S. carriers serve more than three times as many subscribers per megahertz than is the case in South Korea, the U.K., or France, and more than twice as many subscribers per megahertz as is the case in Japan or Germany. Additionally, experts have begun to caution that we should not count on efficiency gains to meet the exploding consumer demand for bandwidth.⁴

Second, simply building more infrastructure will not solve the problem. The FCC's recent decision to impose a "shot-clock" on the consideration of tower siting applications was a welcome and important step forward, but tower construction and frequency reuse alone do

⁴ Rysavy Research, "Mobile Broadband Spectrum Demand," December 2008, available at http://www.rysavy.com/Articles/2008_12_Rysavy_Spectrum_Demand_.pdf, and "EDGE, HSPA, and LTE Broadband Innovation," available at http://www.rysavy.com/Articles/2008_09_Broadband_Innovation.pdf. See also "AT&T, Qualcomm Execs Stress Need for Carrier Network Management," TR Daily, October 8, 2009.

not improve the economics of providing service and are not sufficient to help the industry meet the growing consumer demand for mobile broadband.

Finally, the ongoing shift from voice to data poses an enormous challenge. While it is true that the FCC in recent years has authorized a three-fold increase in commercial spectrum, the problem is that many anticipate a 30-fold increase in wireless traffic.⁵ A single smartphone generates more data traffic than 30 basic-feature cellphones, and a laptop aircard expands this multiple again by a factor of 15.⁶ Addressing this sort of shift will require additional spectrum.

Without a clear indication that additional spectrum will be made available to meet this demand, carriers may be motivated to consider consolidation as a means by which to augment their respective spectrum inventories. While certain mergers might promote efficiency and represent the best way to serve users and shareholders, consolidation should not be the only path by which a carrier in need of additional spectrum can meet consumer demand and grow.

For these reasons, and because delay has additional costs (in terms of investments and services that are delayed, as well as in lost productivity) that we can and must avoid as we seek to put the American economy back on sound footing, Congress should move expeditiously on the inventory legislation.

Once an inventory is complete and spectrum is identified for reallocation and auction, the improvements to the spectrum relocation process proposed by H.R. 3019 will ensure that any bands that may be reallocated are made available in a timely manner and reduce the risks to auction participants by increasing the amount and quality of information available to bidders and federal agencies before an auction of federally-encumbered spectrum. The CSEA

⁵ Prepared Remarks of Chairman Julius Genachowski, "America's Mobile Broadband Future," available at http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-293891A1.pdf.

⁶ Cisco Visual Networking Index: Global Mobile Data Traffic Forecast Update, January 29, 2009, available at http://www.cisco.com/en/US/solutions/collateral/ns341/ns525/ns537/ns705/ns827/white_paper_c11-520862.pdf.

represented an improvement in the framework for relocating government users, and the wireless industry has worked with Congress, NTIA, OMB, and the affected agencies to ensure that the spectrum relocation process following the 2006 AWS auction worked as intended. Nonetheless, we learned some lessons from that process that are reflected in H.R. 3019.

Of the \$13.7 billion raised by the AWS auction, roughly \$1 billion has been used to relocate communications systems for 12 federal agencies that were operating in those spectrum bands. While the procedures worked well for most of the affected agencies, problems affecting a few agencies were complex and their resolution has extended well beyond what was originally expected. That delay harmed both the agencies and the carriers that had been winning bidders in the AWS auction. Among the improvements proposed by H.R. 3019 is a requirement that each federal entity being relocated to new spectrum prepare a detailed transition plan in advance of the auction so that disputes and post-auction delays can be avoided. This and other reforms in H.R. 3019 will make it easier for government and industry to work together to achieve the broadband deployment goals that we all share.

Thank you for the opportunity to discuss these matters with the Subcommittee. We look forward to working with you to ensure that the U.S. wireless industry is positioned to meet the evolving needs of individual and business users while continuing to serve as an engine for economic growth and American competitive advantage.

###