



Five Times More Licensed than Unlicensed Spectrum Below 3.7 GHz

There is currently much Congressional debate over spectrum reform, both in the House Energy and Commerce Committee and with the Joint Select Committee on Deficit Reduction. These are extremely technical, complex issues, and we are appreciative of Members and staff in both Committees for their work on the challenges faced in both licensed and unlicensed bands. To that end, we want to point out some fundamental and key differences between the two.

Beachfront Spectrum Below 3 GHz Matters.

As Holman Jenkins, Jr. pointed out in October 19th's *Wall Street Journal*, "spectrum is an input, like land." And, like land, what matters most is location, location, location. In the "beachfront" frequencies below 3 GHz that penetrate buildings and serve rural areas affordably, there is more than five times as much spectrum licensed for exclusive and flexible mobile use as there is for unlicensed use.

Five Times More Licensed Spectrum than Unlicensed Spectrum.

Indeed, according to the Federal Communications Commission, 547 MHz is currently licensed under flexible use rules for mobile broadband and voice services, while there is only 109.5 MHz available for unlicensed use below 3.7 GHz. Larger unlicensed bands are available only above 5 GHz, which includes frequencies where use is severely limited by the obligation to protect military radar systems, and where signals do not penetrate buildings and are not useful for rural broadband except for point-to-point backhaul.

Unlicensed Spectrum Vital Part of Wireless Communications.

Nevertheless, Wi-Fi has become a critical tool throughout the wireless ecosystem, carrying huge volumes of data traffic. In fact, there is already far more data traffic carried over Wi-Fi than over licensed mobile networks – a disparity that Cisco estimates will increase to six times as much traffic over Wi-Fi compared to licensed mobile networks by 2015.

The Wall Street Journal editorial is exactly right when it says: "you've come a long way Wi-Fi." And we need more of it, not less. The remarkable success of unlicensed technologies is precisely why we should do everything we can to protect and expand the availability of unlicensed spectrum, including Super Wi-Fi, in order to keep up with skyrocketing demand, to deliver jobs and innovations, and to fuel economic growth.