



Testimony of Phillip Berenbroick  
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Public Knowledge

Before the  
U.S. House of Representatives  
Committee on the Energy and Commerce  
Subcommittee on Communications and Technology

Hearing On:  
Improving Federal Spectrum Systems

Washington, DC  
October 7, 2015

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It is critical that Congress consider opportunities to increase the amount of spectrum available for use by wireless devices and services, including unlicensed spectrum, and approaches to encourage Federal spectrum users to relocate to other spectrum bands, relinquish spectrum, or share spectrum with commercial and unlicensed users. Finding solutions to create a consistent, robust pipeline of spectrum that helps to promote competition, deploy broadband to unserved or under-served areas of the country, and foster innovation is key to promoting America’s economic growth, universal service goals, and technological leadership.

**Freeing Up Federal Spectrum**

Today, Federal agencies have substantial spectrum assignments. Critical missions across the government depend on Federal spectrum, including early warning missile systems and air traffic control systems.

Traditionally, when commercial spectrum demands rise, Federal agencies are asked to relocate and make new frequencies available for private sector use. Federal bands ideal for commercial use are identified, government users relocate to other spectrum, and the cleared spectrum is auctioned for commercial use.

While this model has served us well in the past, looking forward we need a new framework allows the Federal Communications Commission (“FCC”) to free up spectrum that

meets the needs of America's economy, consumers, and innovators. Thus, Congress and the Federal agencies responsible for spectrum allocations – the National Telecommunications and Information Administration and the Federal Communications Commission – should to work together to devise a consistent and reliable spectrum pipeline that can meet growing spectrum demand.

Public Knowledge supports policy initiatives that enable Federal users to accomplish their critical missions in a manner that also maximizes opportunities for spectrum sharing or relocating Federal users to enhance spectrum availability for commercial competition and innovation. If done thoughtfully and in collaboration with Congress, the agencies, and other stakeholders, creative solutions to increase spectrum availability have the opportunity to be a rare 'win-win-win' in public policy:

- First, freeing up additional spectrum for mobile broadband use to meet the increasing demand on our wireless networks
- Second, encouraging more efficient Federal use of scarce public resources
- Third, expanding the amount of spectrum available for innovative unlicensed uses like next-generation Wi-Fi networks.

Legislation currently under consideration by this subcommittee is a good start. First, Public Knowledge supports H.R. 1641, the Federal Spectrum Incentive Act, sponsored by Representative Guthrie (R-KY) and cosponsored by Representative Matsui (D-CA), Chairman Walden (R-OR), and Ranking Member Eshoo (D-CA). Providing financial incentives for Federal spectrum users to relocate from their existing spectrum bands is a creative way to free up much needed spectrum for commercial uses and for unlicensed innovation.

Public Knowledge also supports of the goals of the Subcommittee’s discussion draft legislation, the Spectrum Pipeline Act of 2015, that would lay the groundwork for the FCC to engage in long-term planning on how it would relocate Federal users from various spectrum bands, auction the cleared spectrum, and balance between licensed and unlicensed use.

### **The Importance of Unlicensed Spectrum**

The economic activity and consumer benefits derived from mobile broadband use are immense. Licensed spectrum allocated to mobile broadband providers, and unlicensed spectrum, over which Wi-Fi operates, play separate, but complementary roles in the mobile broadband ecosystem. Today, a majority of mobile device traffic is offloaded on to fixed broadband networks via Wi-Fi, leading to a revolution in efficient small-cell spectrum re-use, worldwide Wi-Fi standards, and decentralized investment, innovation, and competition.

Unlicensed spectrum has democratized Internet access and encouraged permissionless innovation, and its value to the U.S. economy is estimated to exceed \$220 billion annually.<sup>1</sup> Unlicensed uses of spectrum include more than just Wi-Fi. Unlicensed frequencies are open for any person and any device to use, for any legal purpose. Uses include cordless phones and baby monitors, Radio Frequency Identification (“RFID”) to make mobile payments, pay tolls on the highway, tracking baggage in transit, and enabling the Internet of Things.

Given the enormous benefits of unlicensed spectrum, any legislative effort to increase the licensed spectrum pipeline should also expand the amount of spectrum made available for license-exempt use. To open up even more spectrum for unlicensed use, Congress should consider opportunities to allow for unlicensed sharing of bands where Federal users reside, ranging from a cut for unlicensed, or Wi-Fi dividend, as FCC Commissioner Rosenworcel

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<sup>1</sup> Telecom Advisory Services, LLC, *Assessment of the Economic Value of Unlicensed Spectrum in the United States*, 73 (2014), available at <http://www.wififorward.org/wp-content/uploads/2014/01/Value-of-Unlicensed-Spectrum-to-the-US-Economy-Full-Report.pdf>.

describes it,<sup>2</sup> to the FCC examining the possibility of an unlicensed underlay, while establishing mechanisms to protect critical bands and prevent interference.

## **Conclusion**

Again, Public Knowledge welcomes the opportunity to work with Congress to develop policies to free up additional spectrum that can be allocated for commercial and unlicensed uses.

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<sup>2</sup> Written Testimony of Commissioner Jessica Rosenworcel, before the Senate Committee on Commerce, Science, and Transportation, Jul. 9, 2015, *available at* [https://apps.fcc.gov/edocs\\_public/attachmatch/DOC-334645A1.pdf](https://apps.fcc.gov/edocs_public/attachmatch/DOC-334645A1.pdf).