

Editorial: Time to expand public WiFi

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From garage door openers to smartphones to tablets, many of us take for granted access to wireless networks through public airwaves. But access is not universal, especially in rural areas, and it is more expensive than it need be.

That's why the current battle over how to allocate public airwaves is important.



Should bands be allocated through bidding for exclusive licenses – as with TV channels and cellular phone service – that transmit sound, data and video in a particular geographic area? Or should bands remain unlicensed for shared use among many players?

To meet the goals of accessibility, affordability and continued innovation, it is time to free up more spectrum for unlicensed use.

The President's Council of Advisors on Science and Technology in a 2012 report highly recommends this major change: "the norm for spectrum use should be sharing, not exclusivity."

The Federal Communications Commission first authorized the use of devices on unlicensed frequency bands in 1938. But the real revolution began in 1985 when the FCC opened up new spectrum for unlicensed use. That jump-started an era of innovation, encouraging manufacturers to create new products that could

access those bands.

From that came such things as WiFi devices (“Internet without wires”) and Bluetooth headsets. Today, we can access the Internet using multiple WiFi devices in coffee shops, airports and our homes. We have applications, such as Skype, that can make calls without using cellular networks.

This is great for consumers – and more unlicensed spectrum would generate even more innovation.

The problem is that to date most new bands for unlicensed use have been limited to communications over short distances and have limited penetration of obstacles. The big prize is high-quality frequencies over long distances that can go through walls and over hills.

So that’s the new frontier – how to tap unused bands of high-quality spectrum in between television channels or on bands not currently being used by government agencies and other band users. The FCC has proposed rules and is gathering public comment.

By allowing devices, such as smartphones, to search for and use “white spaces” not currently in use, we can expand coverage, including in remote rural areas.

Some exciting trials are happening. The Yurok Reservation along the Klamath-Trinity River in Del Norte and Humboldt counties, with rugged, remote terrain, is working with Carlson Wireless to use TV white-space bands to get the community connected.

Plumas-Sierra Rural Electric Cooperative & Telecommunication, partnering with Google and Spectrum Bridge, has gotten stimulus funds to help build an open access wireless backbone so the utility can manage power remotely and residents, businesses, schools and governments in Plumas, Lassen and Sierra counties can get high-speed, cost-effective wireless

service in an area with mountains and big trees.

They see this as a “blue-chip, once-in-a-lifetime chance to span the digital divide.”

We need more unlicensed space to spur the wireless connections of the future.