

To Federal Communications Commission Chairman Julius Genachowski, Commissioners Michael Copps, Mignon Clyburn and Robert McDowell:

After posting comments to this docket about TV White Spaces allowing unlicensed public spectrum to access the Internet everywhere and thanking the FCC for not letting corporations have exclusive control TV White Spaces by making it licensed only so it can be used for purposes like Wifi I'd like to also share the following article "Selling Our Wireless Future" worth a read by regulators in determining future TV White Spaces policy. I support the FCC's initiative by the way to launch an "AllVid" solution to replace the antiquated and confusing CableCARD standard benefiting TV broadcasters over consumers.

As the deficit supercommittee searches every corner to make budgetary ends meet, one solution they are considering, "incentive auctions" of the TV bands, could threaten the future of wireless innovation. These auctions may lock in an outdated regulatory paradigm, strengthen the dominant mobile broadband carriers, and block the path for some of the most innovative wireless technologies that could improve mobile broadband speed and reduce its price over the next decade. In return, the revenue they will raise is a very modest 1.5 percent of the 1.6 trillion dollar package. The auctions would trade off a small short-term revenue gain for less growth and innovation over the coming decade.

The proposed spectrum auctions are being promoted under the false premise that boosting mobile broadband, smart grid communications, inventory management systems, mobile payments, and health monitoring requires auctioning exclusive pieces of licensed spectrum. In reality, these markets are fast developing through unlicensed wireless applications, like WiFi. When the iPhone crashed AT&T's mobile broadband capacity, the company didn't buy more spectrum on secondary markets; it used WiFi to carry much of the data. In the past year WiFi traffic on AT&T's hotspots has tripled. Today, about half of iPhone and 90 percent of iPad page views are carried over WiFi. Indeed, almost two-thirds of all smartphone and tablet data traffic is carried over WiFi rather than over the carriers' networks, whose hunger is driving the demand for auctioning TV bands. In Japan, a good place to see the near future of mobile broadband, the second largest mobile carrier contracted a California firm to roll out 100,000 hotspots as a core strategy for its next generation mobile broadband network.

But it's not only mobile broadband. When you use your E-Z Pass at a toll booth or Speedpass at the gas station, you use unlicensed technology like WiFi, but in a different band. When Wal-Mart moved its field-defining inventory management system to the next generation, it used technology that uses spectrum on the same principle: unlicensed wireless. Almost the entire market for inventory management and access control is now driven by unlicensed wireless technologies. Almost seventy

percent of U.S. Smart Grid communications market is served by firms that use WiFi and similar technologies, and by a one recent account, about eighty percent of the wireless market in the healthcare sector depends on an array of unlicensed strategies.

These dynamic markets are telling us something new: The future of wireless will likely be mostly unlicensed, with an important, but residual role of auctioned, licensed services. And yet the drive to auctions simply ignores the evidence from actual markets in favor of an outmoded regulatory ideal that is the opposite of what cutting edge radio engineering and dynamic markets show.

Most of these applications were developed using junk bands, where regulators dumped industrial equipment and microwave ovens. They thrived even in these harsh conditions, but in an effort to open up new, less wasteland-like areas for these dynamic, innovative technologies, the last Republican and current Democratic FCC chairs presided over the bipartisan creation of TV White Spaces, a policy that permits device manufacturers to expand the capabilities of unlicensed devices by sharing the TV bands with broadcasters. The TV Band auctions being pushed through the supercommittee threaten to displace these white space devices. As we look at the enormous success of unlicensed wireless strategies across the most dynamic markets, we see that doing so is penny wise, pound foolish.

Not only will auctions burden development of unlicensed strategies, if the last major auction is any indication, they will allow AT&T and Verizon to foreclose competition in their markets. When AT&T argued in defense of its T-Mobile merger, it said that T-Mobile wasn't much of a competitor "without the spectrum to deploy a 4G LTE network." But the reason T-Mobile lacks that spectrum is that Verizon and AT&T already own 78 percent of the spectrum bands needed. The new auctions would extend Verizon and AT&T's foreclosure to the TV Bands as well, constraining not only competitors like T-Mobile, but the whole field of unlicensed strategies as well.

As a revenue source, spectrum auctions are a particularly pernicious tax on wireless innovation. They pick the wrong technology for wireless infrastructure by regulatory fiat, and strengthen the market dominance of already-dominant players. The costs of this policy to innovation and growth greatly outweigh its revenue benefits, and the supercommittee simply does not have the time to learn enough to avoid doing more harm than good.

Sincerely,
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