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Spectrum Allocation

The FCC Should Let the Market Work in Spectrum Repurposing

BY LAWRENCE J. SPIWAK

By most accounts, the allocation of scarce resources among competing uses is best accomplished through voluntary transactions. Those that value a resource the most will pay the most for it so that scarce resources end up in the hands that create the most value for society. With the nation facing a shortage of radio spectrum needed to satisfy the growing demand for advanced communications services, it is time for federal regulators to fully embrace market forces to reshuffle the spectrum deck from low- to high-value uses.

Take, for example, the underutilized spectrum in the 900 MHz band presently allocated for narrowband use by a hodgepodge of commercial licenses owned by the private sector and by industrial ''site'' licenses assigned on a first come/first served basis by a frequency coordinator. The problem is that given the way the spectrum is allocated, no one can aggregate sufficient contiguous capacity to convert this underutilized spectrum to much-needed broadband use.

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Yet, although the Commission has struggled for years on how best to deal with this ''beachfront'' spectrum, there may be a simple and elegant solution available: With a simple modernization of its frequency coordinator rules to allow the allocation of broadband licenses and mandatory radio re-tuning, the agency can let the market work to more fully utilize this spectrum in a relatively expeditious period of time.

Letting the Market Do the Work As envisioned, the process would work as follows: qualified users of the band would use a combination of existing site licenses already procured from the frequency coordinator, unused licenses in the FCC inventory, and licenses acquired or leased from other users in voluntary transactions to garner sufficient spectrum to offer broadband services in a defined area. Once an applicant accumulates sufficient spectrum, it would then ask the frequency coordinator to certify that it qualifies to exchange those narrowband channels for a new ''Private Enterprise Broadband License'' (PEBB).

The beauty of this approach is that the Commission is simply adapting a time-tested spectrum allocation mechanism to the digital age. Rather than assign narrowband channels, the frequency coordinator can now quickly certify broadband licenses. No more time-consuming identification and auction of spectrum. Parties simply negotiate among themselves to accumulate sufficient blocks of spectrum, get the frequency coordinator to sign-off, and they are off to the races.

But what about interference to existing users? Again, this is where the market comes in. If someone wants to

obtain a PEBB license, then they also must incur the costs of ensuring that incumbent narrowband users continue to enjoy functionally equivalent service elsewhere in the band. (If PEBB applicants don't want to pay, then they obviously don't want to play.) At the same time, however, by ensuring that re-tuning is mandatory, incumbent users will be prevented from ''holding up'' a better, more efficient use of spectrum—a practice which so unfortunately often prevents market-based solutions to spectrum repurposings.

Equally as important, if the Commission is going to go in, then it must go all in: If no one takes advantage of this modernization of the frequency coordination process in an area, then the Commission should not give up trying to bring this underutilized spectrum to market. Instead, if after a reasonable period of time (say one year) no one attempts to secure a PEBB license in a particular area, then the Commission should conduct an overlay auction for unlicensed PEBB areas with the PEBB license awarded to the highest bidder, whether commercial or site-based applicant. This beachfront spectrum needs to get into the market, and get there fast.

Why It Matters Now, some might argue that with a small swath of spectrum, the proverbial squeeze may not be worth the juice. (Indeed, in the past the Commission has been reluctant to aggressively promote broadband in this band for fear of ''over-commercializing'' the band.) Nothing could be farther from the truth.

Many of the site licenses in the 900 MHz band are currently allocated to electric utilities who, as recent press reports bear out, are in desperate need of fortifying their power grids against terrorist cyber-attack. As the Congressional Research Service warned, because the internet ''provides a ready path to cyberattack from any corner of the world wide web'' it makes sense to ''move the system to dedicated communications and information channels serving uniquely Smart Grid uses.'' Accordingly, a utility's ability to self-provision a dedicated 900 MHz broadband network is an optimal solution to serve the public interest and protect our nation's critical infrastructure.

Through a simple modernization of its rules, the FCC has the ability to implement an expeditious mechanism to convert underutilized spectrum to a higher and better use. Avoiding the traditional time-consuming ''identify and auction'' process that has plagued access to new spectrum and bringing the FCC's frequency coordination rules into the 21st century would at long last let the market work quickly and efficiently to the benefit of the American consumer.

Earlier this year, FCC Chairman Ajit Pai remarked at the Mobile World Congress that the Commission's philosophy under his leadership is ''founded on a simple but profound premise: The market, not government, is best positioned to drive innovation and investment in the wireless sector.'' Well, Mr. Chairman: your moment is now at hand.