



**NEW AMERICA
FOUNDATION**

To: Susan Crawford, Kevin Werbach
Obama FCC Transition Team
From: Michael Calabrese, Sascha Meinrath
Wireless Future Program
Date: December 16, 2008
Re: **Spectrum Policy: Recommendations for the Federal Communication Commission**

The Wireless Future Program at the New America Foundation, a nonpartisan think tank based in Washington D.C. and California, recommends the following issues for immediate consideration:

1. *An Inventory of Unused and Underutilized Federal and Commercial Spectrum Bands:*

Spectrum is an infinitely renewable resource, yet studies show only a fraction of even prime frequencies below 3 GHz are in use, even in the largest cities. Federal agencies sit on hundreds of MHz that are unused in most urban markets; and many private licensees are warehousing spectrum, particularly in rural areas. The TV White Space Order established that new 'smart radio' technologies can facilitate more efficient use of the airwaves while avoiding interference. Thus, we recommend an immediate joint initiative with NTIA to inventory the bands between 30MHz and 3GHz along various dimensions (geographically, time of day/year, altitude, angle). This could be part of an NOI that builds the knowledge base for the following NPRM.

2. *An NPRM on Opportunistic Access to Unused Spectrum, Using TV White Space Database:*

The geolocation database that will be certified for unlicensed access to TV band white space provides will very soon provide one means by which spectrum not in use in discrete geographic areas can be listed as available for opportunistic sharing (or delisted if the licensee builds out in a manner that makes shared access infeasible due to interference).

3. *A Joint Initiative with NTIA to Open Unused Federal Bands for Opportunistic Access:*

Based on the inventory of actual spectrum usage, FCC should encourage and ideally lead a joint initiative with NTIA to identify the technologies, rules, and incentives that will permit private parties (firms and citizens alike) shared access. This could be on an unlicensed or micro-payment basis, depending on the band, and should provide federal agency preemption as needed.

4. *Reconsideration of the Constraints on Spectrum Efficiency and Rural Use of TVWS:*

In an abundance of caution, the TV white space Order adopted Nov. 4 sacrificed spectrum efficiency and great potential for promoting rural broadband and wireless innovation by imposing low across-the-board power limits and not accommodating variable power technologies. FCC should take up petitions to reconsider the power limits, to lower the obstacles to the use of sensing alone to avoid interference, and at a minimum use the NOI on rural broadband to permit more flexible power limits in third- and fourth-adjacent empty channels.

5. *Reconsider Spectrum Caps to Promote Competition in Market for Wireless Broadband:*

The 45 Mhz cap of the mid-1990s instituted a competition policy that facilitated new national and regional entrants. Without effective caps the emerging wireless broadband market will be dominated by too few wireline telcos. FCC currently uses a soft cap of 95 MHz screen to analyze mergers. We recommend FCC open an inquiry into whether and when to reinstate caps to preclude participation in future auctions and/or to limit license purchases/transfers.