

October 20, 2008

**Ex Parte via Electronic Filing**

Marlene H. Dortch  
Office of the Secretary  
Federal Communications Commission  
445 12<sup>th</sup> Street, SW  
Washington, D.C. 20554

**Re: Unlicensed Operation in the TV Broadcast Bands (ET Docket No. 04-186)**

Dear Ms. Dortch:

The undersigned organizations and associations representing the interests of rural communities and Internet Service Providers respectfully submit this letter in the above-referenced docket outlining our shared interests in the recently concluded Office of Engineering and Technology (OET) testing of personal/portable unlicensed “white spaces” devices. We are pleased that the OET report released last week confirmed the feasibility of white space technology to harness the vast potentials of white spaces without causing any harmful interference with incumbent services.

The undersigned groups observed the OET testing with great interest because of the immense potential such devices have for addressing the rural broadband problem, via unlicensed use of the vacant broadcast TV spectrum. Specifically, these “white spaces” devices may be our last best hope for a cost-effective bridge for our nation’s urban-rural Digital Divide, a divide that is measured not simply by access to the Internet, but by access to high-quality, high-speed *broadband* services.

As you know, broadband services are rapidly becoming an essential public utility. However, our nation faces a staggering gap between urban and rural broadband adoption today. According to a 2007 survey by the Pew Internet and American Life Project, less than a third of rural residents had access to broadband at home, compared to more than half in urban areas. A 2006 survey by Local Development Districts (LDDs) of the Appalachian Regional Commission in Pennsylvania found that more than half of rural residents relying on dial-up Internet access cannot afford broadband services, while another 40 percent simply lacked access to broadband. The survey also found that nearly a third of rural businesses still relied on dial-up. This distressing reality is unacceptable to the undersigned groups, and should not be acceptable to the Commission tasked with achieving universal broadband for our nation.

In light of the current state of broadband disparity, we applaud the FCC for moving forward with its Report and Order on opening vacant TV channels for unlicensed use, with the goal of ensuring affordable, accessible broadband Internet for all Americans.

We appreciate and respect the professionalism of your OET staff in testing the prototype devices submitted by several high-tech vendors, and we hope the OET report will assist

the Commissioners in adopting the final Order. Meanwhile, the undersigned entities wish to reiterate several principles that we believe are critical for the adoption of white spaces devices for rural communities.

First, we believe white spaces devices must be unlicensed . Free, shared, and unlicensed access to the vacant TV spectrum provides the greatest opportunity for innovation and adoption of broadband devices. Unlicensed use reduces cost-of-entry for new service providers, reduces the cost of broadband services for rural subscribers, and enables rural users to tailor the technology to the unique needs of their local communities. However, should the Commission adopt a licensed model, the overwhelming majority of existing rural providers, local governments, and individuals, would be unable to compete against giant wireless or landline carriers, the only entities who can afford the high cost-of-entry for exclusive, licensed spectrum. The cost of purchasing an exclusive wireless license at auction effectively shuts out small, rural providers; perpetuates rural America's dependency on absentee network-owners; and eliminates the potential of “innovation at the edge” by rural users.

Second, we believe white space devices must remain mobile. The ability to move about and not be tethered to fixed poles or objects is crucial for the adoption of white spaces technology capable of cost-effective deployment across the diverse terrains of rural communities. The innovative potential of the TV “white spaces” should not be restricted to fixed devices. Mobile devices are critical to providing ubiquitous coverage in challenging terrain. Farmers and ranchers, for example, may one day wish to install white space devices not only on silos, barns, or rooftops, but also on their machinery or even livestock to provide broadband coverage in remote areas, as well as real-time remote monitoring.

Furthermore, allowing mobile uses would encourage greater economies of scale among manufacturers, bringing down the cost of equipment. For example, Wi-Fi chips commonly found in laptops and dozens of other devices are designed for flexible use and mass consumer markets, making them relatively inexpensive. By contrast, proprietary public safety systems have limited economies of scale, meaning local communities often pay hundreds or even thousands of dollars for a mobile handset. Thus, mobile access is not only essential for solving the rural broadband problem; but also for making this new generation of wireless equipment affordable for economically-challenged communities, both rural and urban.

After completion of the digital TV transition in February 2009, the vast majority of TV channels in rural communities across the country will be vacant and unused. Thus the FCC has a unique opportunity to provide underserved rural communities with a critical communications resource to swiftly bridge the rural-urban broadband divide by approving unlicensed, mobile “white space” devices. The undersigned, therefore, strongly urge the Commission to expeditiously adopt the Report and Order scheduled for a vote next month that would truly maximize the vast potentials of white spaces. The broadband needs of rural America have been neglected long enough. We look forward to working with the FCC in making affordable broadband available to *all* Americans.

Sincerely,

Center for Rural Strategies  
Institute for Local Self-Reliance  
Mountain Area Information Network

Access Humboldt  
Institute for Agriculture and Trade  
Policy

Main Street Project  
Native Public Media  
Southern California Tribal Digital  
Village  
Center for Rural Affairs  
HandMade in America

1 John B. Horrigan, “Home Broadband Adoption 2007,” Pew Internet and American Life Project (June 2007), 4,  
[http://www.pewinternet.org/pdfs/PIP\\_Broadband%202007.pdf](http://www.pewinternet.org/pdfs/PIP_Broadband%202007.pdf).

2 Amy K. Glasmeier, Chris Brenner, Chandrian Ohdedar and Lee Carpenter, “Beyond the Digital Divide: Broadband Internet Use and Rural Development in Pennsylvania,” Social Science Research Institute, Pennsylvania State University (June 2007), 17 – 18,  
[http://www.ssri.psu.edu/policy/Glasmeier\\_Benner\\_CRP\\_FinalReport.pdf](http://www.ssri.psu.edu/policy/Glasmeier_Benner_CRP_FinalReport.pdf).