August 24, 2007

Dear Members of the Senate Commerce Committee:

Recently you may have been visited by lobbyists from the National Association of Broadcasters (NAB) and Association for Maximum Service Television (MSTV) regarding the Federal Communications Commission's Office of Engineering and Technology (OET) test of prototype unlicensed devices in the so-called "white spaces" spectrum.

You may also have seen a letter from NAB to Microsoft – one of the manufacturers of the prototypes tested – claiming that such devices would "permanently" undermine over-the-air television by imposing an "unacceptable risk" of harmful interference. While these doomsday arguments make an entertaining read, they are misleading and represent an attempt by the broadcasters to obfuscate the real results of the OET's testing.

As you know, every market in the country has public airwaves set aside for broadcast television that sit empty and unused. The most important "white spaces" in the public airwaves are in the areas reserved for broadcast television. In many markets, less than a quarter of the TV broadcast channels are used, leaving over three-quarters of this spectrum band fallow. This empty space represents billions of dollars squandered public resources that could be used by other communications services. Indeed, the white spaces are perfectly suited for wireless broadband services – unlicensed devices in unused TV bands is exactly the type of "spectrum in-fill" that is now possible due to technological advances of the past decades.

The FCC has been working on opening the white spaces for wireless broadband for several years. The FCC proceeding (04-186) has drawn support from consumer groups, wireless internet service providers, and the high-tech industry, including Dell, Microsoft, Intel, and Philips Electronics.

Recently, the OET reported its initial measurements of two prototype unlicensed devices. OET's goal was to "conduct a testing program, including field testing, to assess the potential for interference from low power devices operating in the TV bands." Contrary to claims by some parties, the OET testing clearly confirmed that current technologies can detect TV broadcast signals and operate on vacant TV channels. The so-called "failure" of the prototypes was not due to the devices' inability to detect signals, but rather due to the FCC setting a reception sensitivity benchmark that was slightly outside the operational specs of the devices tested (-116dBm instead of -114dBm). It is important to note that the FCC's own test results demonstrate that Prototype B operated at

a 100% success rate at the -114dBm reception sensitivity – thus demonstrating conclusively the viability of these technologies.

The lesson from the OET effort is that even with today's sensing technology, devices can identify incoming signals at strength levels well below what is necessary to protect television reception. It remains for the OET to set a suitable sensitivity standard, one that would be necessary to protect broadcast television viewers from harmful interference.

None of the OET's results undermine the fundamental reality that unlicensed spectrum is an open platform for innovative technologies. The unlicensed spectrum currently available — just 2 percent of the total commercial allocation — already has spurred entrepreneurship and technological innovation, generating billions of dollars in new business for manufacturers, retailers and providers, and providing myriad unquantifiable public benefits – from emergency communications during Katrina disaster response to free broadband access at cafes across the country.

This spectrum will not be used for innovation or affordable broadband if it is just auctioned off to be solely controlled and used by the highest bidder. Setting aside this white spaces spectrum for unlicensed use would produce long-term economic and social benefits far more valuable than the temporary loss of auction revenue. With more unlicensed spectrum, the wireless Internet networks being developed across the country would be even faster and more reliable. For rural America, white space access for unlicensed devices is even more important. Areas that have had few over-the-air TV channels for generations would have an unparalleled opportunity to make efficient use of vast swaths of unused spectrum – turning their paucity into an unparalleled resource.

Contrary to Washington's typical obsession with a "clash of the corporate titans" narrative on telecommunications policies, the process of opening up the white space spectrum is not about broadcasters versus device manufacturers. White space access is about improving local emergency communications networks, nurturing small businesses and entrepreneurship, creating competition in the broadband market, and ensuring that low-income, minority and rural households are not left behind as our technology advances in the 21st century. White space access for unlicensed devices is about shifting spectrum licensure so that underserved areas are granted the greatest resources – it is about leveraging unused spectrum to close the digital divide.

The deployment of unlicensed devices with smart sensing technology in the white spaces spectrum will create a booming marketplace for high-speed, high-capacity broadband as well as the concomitant technologies and applications. This could be one of the best ways to address the digital divide and create truly affordable, universal broadband in the United States. Supporting such devices is not about supporting Microsoft or opposing NAB, it is about promoting good public policy that will utilize an untapped resource to make universal, affordable broadband a reality.

We hope you will see through misleading arguments on the OET's testing results, take a look at the OET's own data (in particular, Figure 3-4 on page 14 of the report and Figure

3-9 on page 18 of the report), and support the FCC's ongoing efforts to open up the white spaces spectrum for unlicensed devices. The OET's results demonstrate that the FCC's process is working: the Commission is experimenting with device standards that protect against interference, and device manufacturers are building prototypes for testing against these standards. Round one of testing is complete, and the next logical step is for device manufacturers to work with the FCC to set standard technical specifications and build a device that passes muster for certification. This is the first successful phase of that process and should not be treated as the last chapter.

Please feel free to contact any of us if you have any questions.

Sincerely,

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