

October 23, 2008

Electronic Filing

Ms. Marlene H. Dortch, Secretary
Federal Communications Commission
445 12th Street, S.W.
12th Street Lobby, TW-A325
Washington, D.C. 20554

**Re: Written Ex Parte Presentation
ET Docket Nos. 04-186 & 02-380**

Dear Ms. Dortch:

On October 22, 2008, Christopher Guttman-McCabe, Vice President, and Paul Garnett, Assistant Vice President, Regulatory Affairs, CTIA – The Wireless Association® met with Wayne Leighton, Special Advisor to Commissioner Deborah Taylor Tate to discuss issues in the above-captioned proceedings. CTIA believes that the Commission should take a measured, responsible approach from both a regulatory policy and spectrum management perspective as it considers unlicensed use in the TV white spaces. To that end, CTIA urges an incremental approach by which unlicensed use of TV white spaces initially would be limited to a subset of television channels 21-36. Only if unlicensed operations in TV white spaces prove a successful business model that actually delivers on its promise and that can operate without causing interference to licensed operations, should the Commission consider extending unlicensed uses beyond the initial channel range. At the same time that the Commission pursues unlicensed uses, CTIA urges the Commission to set aside a portion of the television white spaces for licensed operations. Specifically, CTIA proposes that the Commission immediately reserve television channels 38-51 for licensed white space uses.

By taking a measured approach, the Commission can honor its spectrum management responsibilities while moving spectrum to the market through auction for broadband use and still giving unlicensed white space proponents sufficient spectrum resources to move forward with development. As the Commission and citizens throughout the country have witnessed, the promise of municipal Wi-Fi has not been realized. In spite of very good intentions, and access to significant financial resources, countless municipal Wi-Fi efforts have been shuttered. With these very real, and very recent failures of this business model in mind, the Commission should move forward with caution and with a measured approach when considering allocating TV white space channels to unlicensed. As the record details, there is a large amount of spectrum available. By no means have the white spaces unlicensed proponents proven that all of this spectrum will be used. Conversely, mobile wireless providers are using their spectrum resources, serving 260 million customers and are increasingly delivering broadband to those subscribers. CTIA believes that reallocating and auctioning a portion of the spectrum for licensed use, particularly in rural areas, will have an immediate impact on the provision of broadband to rural areas. As the Commission highlighted repeatedly both before and after the recent 700 MHz auction, the properties of the spectrum make it perfect for broadband and mobility. The propagation and other characteristics of this spectrum will aid rural providers in their continued efforts to deliver broadband wireless to the citizens of rural America.

By reserving a portion of TV white spaces exclusively for licensed operations, the Commission can achieve several important policy goals, without sacrificing the potential of this valuable spectrum. As detailed above, a licensed approach will create opportunities for expanded broadband deployment. It will provide meaningful interference protection to authorized radio services in the TV band. Moreover, in recognizing unlicensed proponents' strong interest in the TV white space *and* the ongoing need to review novel engineering solutions, the Commission will preserve for a later date an assessment of more advanced white space devices and whether unlicensed rules can drive deployment while protecting authorized services. Although no single interest will be fully satisfied with this proposal, CTIA believes it best serves the public interest.

In order to achieve these goals, the Commission should:

- (1) Limit unlicensed TV white space use in channels 21 through channel 36.
- (2) Reserve a portion of the white spaces spectrum from channel 38 through channel 51 for area-wide licensed services, subject to auction; and
- (3) Reserve channels 2-20 for future consideration.

This approach balances the promise of broadband delivery through a licensed regime with the potential advocated by unlicensed proponents.

An Area-wide Licensed Regime for a Portion of the White Space Spectrum Will Encourage Sufficient, Timely Investment in Last-Mile Broadband. A licensed framework for the television white spaces will encourage service providers to make the necessary investments in equipment and infrastructure for mobile and last-mile broadband while preserving a portion of the spectrum to further investigate the potential of unlicensed use. The evidence is clear that investors and service providers prefer last-mile wireless broadband networks that rely on exclusive-use, licensed spectrum. By licensing a portion of the white spaces, the Commission can continue to promote the extension of wireless broadband services across the country.

The question remains whether investors will come forward to invest in an unlicensed white space network that connects broadband devices to the Internet. Despite the fact that hundreds of megahertz of spectrum have been set aside for unlicensed use for years, no one has stepped forward with the capital necessary to create a nationwide unlicensed broadband network. In contrast, licensed providers continue to invest billions of dollars into their mobile broadband networks. Additionally, unlicensed spectrum use may not offer sufficient protections against interference to justify the significant investment necessary for last-mile broadband networks. The current, unaddressed interference concerns identified in the OET report on unlicensed white space devices could lead the marketplace toward establishing short-range local area networks (such as Wi-Fi hotspots or in-home networking), but this would squander the unique mobile broadband deployment opportunity that the white space spectrum represents for addressing mobile wireless broadband needs now. The Commission should carefully consider the investment climate that its decisions in the TV white space proceeding will create.

An Area-wide Licensing Regime Allowing for Mobile and Fixed Broadband Will Provide Sufficient Protection for DTV Users. The recent report by the Commission’s Office of Engineering and Technology raises concerns over interference from unlicensed white space devices. Despite OET’s determination that the devices met the “proof of concept” burden, there are significant questions about the viability of the technologies tested to protect DTV operations in the TV bands. These concerns are exacerbated under an unlicensed regime due to the nature of unlicensed uses and users. Once an unlicensed device is sold to an end user, there is no way to identify that user in the future. In the event that the unlicensed device causes harmful interference, it would be difficult to impossible to identify the source of the interference and the party responsible. Given the recent testing by OET, this situation is a very real possibility. Under a licensed regime, by contrast, a broadcaster experiencing interference from a white space device need only contact the licensed operator in the market to address the interference.

A Licensed Approach Will Generate Billions for the Federal Treasury. In these difficult economic times, the revenue that could be generated by auctioning a portion of the television white spaces for commercial use should not be taken lightly. Federal spectrum auctions have brought billions to the Treasury and an auction of the white spaces would be no exception. A study done by the Brattle Group estimates that by auctioning all of the white space spectrum the Commission could generate as much as \$24 billion. Even more conservative estimates place the revenue from such an auction at \$12 billion. The Commission should not ignore the benefits to both the government, and to the economy generally, of auctioning part of the white space spectrum for licensed use.

Reserving a Portion of TV White Space Spectrum for Licensed Services Preserves Different Spectrum Opportunities While Addressing Present Need. The TV white space lab tests and field studies show that interference protection regimes including “spectrum sensing” have not yet developed to the point where policymakers can find with confidence that interference will not occur. Even the recent OET Report, while finding that the devices tested met the “proof of concept” burden, found that there was significant interference to DTV receivers from prototype devices and that many of the “spectrum sensing” technologies had a high margin of error. At the same time, CTIA recognizes the intense interest in unlicensed TV white space opportunities. Reserving TV white space spectrum for licensed use, allocating some for unlicensed use, and reserving some for future consideration makes sense from a spectrum management perspective.

* * *

CTIA urges the Commission to proceed with caution in deciding the fate of the television white spaces. A more measured approach involving licensed use of channels 38-51 combined with some amount of unlicensed use in channels 21-36 and reserving channels 2-20 for future use will best balance the need for the Commission to address current broadband needs through the certainty of licensed spectrum with the potential of unlicensed white space technologies.

Pursuant to Section 1.1206 of the Commission's Rules, a copy of this letter is being electronically filed with your office. If you have any questions regarding this submission, please contact the undersigned.

Sincerely,

/s/ Christopher Guttman-McCabe

Christopher Guttman-McCabe

cc: Charles Mathias
Bruce Gottlieb
Renée Crittendon
Wayne Leighton
Angela Giancarlo
Julius Knapp
Alan Stillwell