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August 5, 2008

Via Electronic Filing
Marlene H. Dortch, Secretary
Federal Communications Commission
445 12th Street, SW
Washington, DC 20554

Re: Ex Parte Notice
ET Docket No. 04-186

Dear Ms. Dortch:

On August 5, 2008, Charles Townsend and the undersigned, both representing Aloha Partners, L.P. ("Aloha"), met with Wayne Leighton of Commissioner Tate's office and discussed matters in the enclosed handout.

Pursuant to 47 C.F.R. § 1.1206(b)(2), this notice is being submitted electronically in the above-referenced docket. In addition, one copy of this notice is being transmitted via e-mail to Wayne Leighton.

Very truly yours,

/s/ Thomas Gutierrez
Counsel for Aloha Partners, L.P.

Enclosure

cc: Wayne Leighton, Esq.

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August 1, 2008

Commissioner Jonathan S. Adelstein
Federal Communications Commission
445 12th Street SW
Washington, DC 20554

RE: ET Docket No. 04-186

Dear Commissioner Adelstein:

Over the past two (2) months I have researched the questions you raised about White Space at our meeting in May. We have addressed five (5) areas: 1) How much revenue might be generated by White Space auctions; 2) How much spectrum might be available for commercial White Space operations; 3) Whether unlicensed spectrum is utilized more than licensed spectrum; 4) Whether current unlicensed Wi-Fi experiments have been successful; and 5) Whether unlicensed spectrum can provide a good solution for rural broadband deployments. Each of these issues is addressed below.

1. **White Space Auctions could generate up to $25 Billion in Auction Revenues**

The key question that you raised is how much revenue could be generated by auctioning the White Space. The well respected Brattle Group has analyzed this issue extensively. Their conclusion is that auction revenues of $10-25 Billion would be generated. Aloha Partners conducted a more conservative analysis and concluded that auction revenues of $8-15 Billion could be expected. The key variable in both of these analyses is whether adjacent channel operation will be permitted below Channel 51 in the White Space. The Broadcasters have opposed adjacent channel operation. However, the Commission has already developed rules regarding adjacent channel interference for Channels 52-69 that are equally applicable below channel 51.

In the 700 MHz auction NPRM, the Commission established rules for adjacent channel interference from 2- way broadband networks to broadcast channels at the Channels 51 and 52 interface. We believe that those same rules are applicable to the White Space channels. Several years ago, Aloha conducted a test in Phoenix of adjacent channel interference between a 2-way broadband network and the adjacent broadcasters. Aloha had licenses for channel 54 and 59. Aloha found that interference was most likely to occur in the area that was at the periphery of the broadcast grade B contour where the broadcast signal was the weakest. Through the use of filters and power reduction in those areas, Aloha was able to minimize adjacent channel interference to levels that would be in compliance with the existing rules.

Furthermore, the Broadcasters have established a rigorous adjacent channel interference methodology that calculates whether adjacent channel interference is acceptable or not from other broadcast signals. The Broadcasters have used this methodology for the past twenty (20) years to justify adjacent channel operation. This Broadcast methodology is

just as applicable for the White Space channels that are to be currently used for Mobile TV applications.

2. **An average of 100MHz of White Space spectrum is available in the top 10 markets**

The Brattle Group study demonstrates on an MTA-by-MTA basis how much White Space spectrum will be available under different regulatory frameworks. This study indicates that in the top 10 markets like New York, Los Angeles, Chicago, Philadelphia, and San Francisco between 60 to 150 MHz of spectrum would be available if adjacent channel operation is permitted. The average for the top 10 MTAs is 100 MHz of spectrum. This is nearly twice as much spectrum that was available in the recent 700 MHz auction. In rural markets, the average clear spectrum is over 200 MHz, if adjacent operation is permitted. The net out of this analysis is that there is an enormous amount of spectrum that can be used for commercial operations if the White Space is licensed and adjacent channel operation is permitted.

3. **Licensed spectrum is significantly more utilized than unlicensed spectrum**

We have reviewed several spectrum utilization studies and found that there are many licensed frequency bands that are indeed underutilized. Most of these are frequencies in the 1240-1710 MHz bands. However, this is very deceptive because much of the spectrum in the 1240-1710 MHz bands is licensed to non-commercial operations. If you compare the unlicensed PCS band (2390-2500 MHz) to the licensed PCS band (1850-1990 MHz), the studies consistently indicate the opposite conclusion: Licensed PCS frequencies are utilized significantly more than the unlicensed frequencies. In 2004 and 2005, the National Science Foundation studied spectrum utilization in seven (7) different locations throughout the United States. In six (6) of those seven (7) locations, licensed PCS spectrum is utilized significantly more than unlicensed PCS spectrum.

4. **Unlicensed Wi-Fi experiments have been failures**

There have been a significant number of experiments with unlicensed Wi-Fi in major Metropolitan areas, including San Francisco, Philadelphia, and New Orleans. In every instance, these experiments have been a failure. They have not failed due to lack of funding: EarthLink has spent in excess of $50 million building unlicensed Wi-Fi operations in these cities. These experiments have failed due to lack of demand for unlicensed Wi-Fi service. EarthLink had expected to have over 100,000 customers in Philadelphia in the first year. In spite of extensive marketing efforts, EarthLink was only able to attract 5,942 subscribers.

The Palo Alto Weekly article entitled **"Into thin air- Why Silicon Valley Wi-Fi fizzled"** explained what happened:

> "It seemed like a good idea- Internet for everyone. So much so that cities across the United States announced plans for citywide Wi-Fi networks in an excited chorus starting in the early 2000s. But in the last few years, most cities' plans to provide Internet access through a wireless network have fallen flat, deflated by shortcomings in technology and financial woes. This spring, Silicon Valley became the latest casualty of the Wi-Fi flop. In April, Internet provider EarthLink pulled out of Milpitas, part of a strategy to abandon the municipal-

> wireless business altogether. In May, Metrofi announced plans to pull the plug on Wi-Fi service to Cupertino, Sunnyvale, downtown San Jose, Santa Clara, Foster City and Concord. Those services went dark in June."

The reason for these consistent failures was simple-- no customers. Even in Google's own backyard, no one has been able to attract enough customers to make unlicensed Wi-Fi viable.

5. Licensed Broadband has dramatic advantages in rural areas

Aloha requested the Lukas, Nace, Gutierrez and Sachs engineers to compare coverage potential of licensed versus unlicensed operation in rural areas. Based on a typical licensed power of 1kW for the licensed spectrum versus 1 W for the unlicensed spectrum, the engineers estimated that a licensed signal can travel up to 30 miles in rural areas, but an unlicensed signal can travel only up to 4 miles. This difference results in over a 50 to 1 coverage advantage for the licensed spectrum. That means that for every licensed cell site, there will need to be roughly 50 unlicensed cell sites. The only way to successfully provide broadband to rural areas is on a licensed basis so that power levels can be maximized and interference can be reduced. The National Telecommunications Cooperative Association (NTCA) recently conducted a survey of its membership about wireless broadband issues in rural areas. NTCA represents over 580 small and rural telephone companies throughout the U.S. Seventy three percent (73%) of NTCA's members indicated that they would prefer access to additional licensed spectrum over additional unlicensed spectrum.

I hope the above discussion answers your key questions, and I look forward to meeting with you on August 4, 2008 to discuss further this subject. Meanwhile, the more that Aloha studies this matter the more convinced I become that White Space needs to be licensed, through auctions.

Sincerely,

Charles Townsend

Charles Townsend
President
Aloha Partners, L.P.