## Remarks of Jonathan S. Adelstein Commissioner, Federal Communications Commission

## "WISPs: Providing Opportunities for Rural America through Access to Broadband" WISPCON VII The Bolger Center Potomac, Maryland

March 21, 2005 [As prepared for delivery]

Thank you Mike for the kind introduction. I am so pleased to have this opportunity to address this audience of Wireless Internet Service Providers.

Broadband access is the key to development and growth in this digital information age. It's a key that can open the educational and economic opportunities of the world to rural communities across America, enabling people to enrich and enable themselves. That is why facilitating access to broadband is one of the core policy goals of the FCC.

For those of you who do not know, I grew up in Rapid City, South Dakota. South Dakota has one of the lowest population densities of any of the states in the United States. In part, I think that the state's vast expanses of undeveloped country, including places of spectacular beauty like the Badlands, make it such a great place to call home.

At the same time, though, low population density and large rural areas can reduce the incentives for commercial service providers to provide access to broadband. And that is where you all come in. Because wireless networks require relatively less infrastructure and because access to unlicensed spectrum is free, WISPs are making a go of it in small communities across America. And, of course – as I have seen first hand – WISPs are making a go of it in small communities across South Dakota.

You are pioneers for digital progress. You are ensuring that rural America is part of the digital communications revolution. For that I am personally grateful, and all of us at the FCC are cheering you on.

My goal has been to push as much data and information as possible over the airwaves. With the rise of VOIP, your services are more crucial then ever, and will experience more demand.

Over the course of this conference, you will be hearing about some of the FCC's efforts to facilitate access to broadband. The Wireless Broadband Access Task Force recently concluded a top-to-bottom study of the current state of technologies and deployment of wireless broadband. Based on that review, the Task Force just recently provided the Commission with some solid food-for-thought on ways to further promote these services. Lauren Van Wazer, Co-Director of the Task Force, will be discussing their findings and recommendations with you tomorrow

morning. Later tomorrow, you will also hear from a panel of the FCC's in-house subject matter experts – like Julie Knapp and Jim Schlichting – on some of our recent rulemakings that are important for WISPs.

I would like to take a moment to highlight some of these recent actions. Earlier this month, we adopted rules to make 50 MHz of spectrum in the 3650 MHz band available for wireless broadband services. To promote interest in the band, we adopted an innovative hybrid approach for spectrum access, by making the spectrum available on a licensed, but non-exclusive, basis. In many respects, this is a bold decision. Based on some circumstances unique to the band, our decision bucks conventional wisdom. Anyone can obtain a nationwide license, and need only register their high-power fixed sites, therefore making it available for multiple users to share spectrum in the same geographic area. While not a traditional "unlicensed" model, we have taken appropriate steps to significantly lower barriers to entry. This approach should make it much easier for this spectrum to get in the hands of people who are ready and willing to use it.

This follows in the footsteps of our decision in the 70/80/90 GHz proceeding that also broke new ground in our approach to spectrum licensing in making spectrum available for enterprise use. While you may not be familiar with this spectrum block, it can be used to connect buildings with multi-gigabit-speed wireless point-to point links for a mile or more.

Instead of digging up streets to bring fiber to buildings, licensees can set up a wireless link for a fraction of the cost. And it is available to licensees by just applying through an on-line database.

I think these decisions reflect a positive trend at the Commission. We need to find the right balance between a licensing model for traditional, area-wide mobile systems, and a model for services such as those proposed for the 3650 MHz band – a band that ultimately may serve a different user group, one that often is driven by more localized, community based needs.

So in 3650 MHz, we put in place a regime that does not rely on first in time and provides equal access to all. We want to take advantage of the WiFi movement and take it to another level.

Of course, only time will tell if the novel decisions we make here result in increased use of this spectrum band. But I think that given the success of unlicensed wireless networks, we are on the right track, and our creative spectrum management approach is well justified.

We also recently re-examined and modified our equipment authorization rules to ensure that we are facilitating the deployment of new "smart radio" technologies. With this, we laid the foundation for implementation of these innovative technologies – again, we hope that this increased flexibility will enable you to offer even more innovative services.

I have been fortunate to be involved in our work on cognitive radio technologies since helping the Office of Engineering and Technology open its workshop on cognitive radio technologies in the spring of 2003. I remarked then that cognitive radios could play a key role in shaping our spectrum use in the future. As we see now, the enormous potential of cognitive radios is being realized increasingly every day. I very much appreciate the efforts of the Commission staff in pushing this forward – making sure our rules keep pace with this cutting edge technology.

I believe that cognitive radios will play an important role in "spectrum facilitation." That means stripping away barriers – regulatory, economic, or technical – to get spectrum into the hands of operators serving consumers at the most local levels. Cognitive radios can literally leapfrog the technical and legal problems that currently hamper many of today's spectrum access opportunities.

These technologies should lead to the advent of smarter unlicensed devices that make greater use of spectrum than is possible today. Cognitive radios may also provide licensees with innovative ways to use their current spectrum more efficiently, and to lease their spectrum more easily on the secondary market. I have seen cognitive radios up close and am just amazed by their potential.

While we did not tackle the issue yet, I remain particularly interested in our proposal from the original NPRM to allow higher power operation for unlicensed devices operating in rural and other areas of low spectrum use. I regularly hear from WISPs across the country that they need improved access to spectrum. Higher power operation can drive broadband deployment deeper and farther into all parts of America.

Last May, I was able to see first-hand some of the good work you have done in rural America. I participated in the wireless broadband outreach event in Rapid City. There, I heard from Mike Anderson as well as several other WISPs, including Sioux Valley Wireless. I particularly enjoyed hearing about Sioux Valley's use of both licensed and unlicensed spectrum to offer high-speed access – more than 1 Mbps, for those of you keeping score at home.

These broadband success stories are what make me so excited and enthusiastic about what we are doing at the Commission. I hope that you take the new broadband tools we have tried to provide and continue to do more good work. Also, I would like to encourage you to speak up and often about what other actions the FCC can take to facilitate broadband in rural, and, indeed, all of America. We need to hear from you – you are a strong and important voice for the wireless broadband future.

Thank you.