

**STATEMENT OF
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SMALL BUSINESS COMMITTEE
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Mr. Chairman, Congressman Fortenberry, and members of the Subcommittee, thank you for inviting me to testify about one of the seminal challenges confronting our Commission and the country: ensuring the ubiquitous deployment of affordable, high speed broadband infrastructure to every corner of this country.

We need to maximize the potential of every citizen to contribute to our social, cultural and economic life through communications, whether they live in major cities or in rural, insular or other high-cost areas, whether they are Native Americans living on tribal lands or residents of economically challenged sections of our inner cities, whether they live with disabilities, whether or not they speak English, and regardless of their income level. I would like to talk to you today about why I believe this is such an important guiding principle for communications policy and a few of the ways we at the FCC and you in Congress can and must work to achieve this ambitious goal. We need to make broadband the dial-tone of the 21st Century.

I am particularly honored to be here because -- as a fourth generation South Dakotan and the first FCC Commissioner from my state, and even from the entire upper Midwest -- I am naturally interested in the important role of broadband as a tool for promoting economic development in Rural America. Early in the last century, my grandfather became an engineer and founded a company that built roads throughout our state. The motto of our family company was "Builders of Better Bridges and Highways." I keep that spirit in mind in my work at the FCC. Just as roads and bridges provide physical links between our communities, our communications networks now bring people together in ways that my grandfather never could have imagined, but that, I'm sure, would have made him smile in wonder.

In some areas of the country, our communications tools have already surpassed the reach of the physical infrastructure to overcome the limits once immovably fixed by distance. I have visited the Bush region in Alaska, above the Artic Circle, where satellite technology, funded through universal service support, connects even some of the most isolated villages to the health and educational facilities of hub cities, even though no roads connect these towns. As we upgrade our nation's communications networks to provide broadband functionality and advanced communications services everywhere, our children will integrate these tools into their lives in ways that we are only beginning to see.

The Role of Broadband for Rural America

By expanding the reach of advanced communications technologies, we can bring new hope to many communities where it is in short or diminishing supply. We are only scratching the surface of the opportunities that these technologies can bring. We stand at the threshold of a revolution in the applications that will ride over this infrastructure. These opportunities hold enormous potential for consumers and workers in small towns and Rural America.

Broadband can connect entrepreneurs to millions of new distant potential customers, facilitate telecommuting and increase productivity. These new connections can create new jobs by allowing businesses to set up remote locations and call centers. Since I have joined the Commission, I have traveled across the country and seen broadband technologies harnessed in rural areas in ways folks back inside the Beltway might never have imagined.

For example, at auction houses across the Midwest, entrepreneurs are using broadband technologies to conduct real time cattle auctions over the Internet. Ranchers from across the country can log in, watch real time video of the livestock and make purchases without leaving their ranches. By putting their livestock up for bid in cyberspace, these auction houses have been able to bridge remote locations, expand their potential markets, and cut the costs of reaching their customers.

Broadband can also unlock transformational opportunities through distance learning and specialty classes that might otherwise be confined within the physical walls of a traditional school. Similarly, telemedicine applications are giving Rural Americans access to diagnostic services, like mobile mammography and emergency services that had been unavailable because of distance, cost, weather, or geography. As we have seen through events like the devastation of Hurricane Katrina, our communications services become even more critical in times of disaster or national emergency, whether as a means of conveying critical information to the public, enabling citizens to communicate with their loved ones, or providing an essential tool for our first responders. Broadband networks are essential to any plan to make emergency networks robust and redundant enough to survive and function in the face of such disasters in the future.

Broadband technologies have the potential to improve the quality of life in even some of the most remote and economically challenged communities. On Native American lands, I have seen tribally-owned providers using broadband infrastructure to bring jobs to their communities that serve not only as important sources of employment, but also as training grounds for the young people of the tribes. In almost every small community I visit, I hear how hard it is to develop a workforce with sufficient training in technology. Yet without such workers, it is hard for a small town to develop and oversee cutting edge communications systems. We want people to be able to stay, work, and thrive in the communities where they grew up, yet I often hear that it is harder to keep young people in rural areas these days because they feel a palpable lack of local opportunities. Broadband communications can benefit Rural America in many ways, perhaps most of all by restoring the sense of opportunity that first made Americans venture forth and settle the more remote areas of this country.

As consumers are increasingly empowered to use broadband in newer, more creative ways, the stage on which we all must compete is also evolving into a global one. New telecommunications networks are a key driver of this new global landscape. They let people do jobs from anywhere in the world -- whether an office in downtown Manhattan, a home on the Cheyenne River Indian Reservation, or a call center in Bangalore, India. This trend should be a wake-up call for Americans to demand the highest quality communications systems across our nation, so that we can harness the full potential, productivity and efficiency of our own country. We must give all our towns the tools they need to compete in this new marketplace. If we fail in this, be assured, our competitors around the world will take full advantage of our failure.

Rural America and Global Competitiveness

Keeping our communities connected and ensuring that the latest technologies reach all Americans, including those in remote and underserved areas, are principles that are enshrined in the Communications Act. Meeting these goals will be more important than ever as we enter a new age of global competitiveness.

We've made progress, and there are many positive lessons to draw on, but I am increasingly concerned that we have failed to keep pace with our global competitors over the past few years. Each year, we slip further down the regular rankings of broadband penetration. For small businesses, those in rural areas, and low income consumers, the problem can be even more acute. According to one recent report, seventy-six percent of small businesses in rural areas report no access to terrestrial broadband services. Even more troubling, there is growing evidence that citizens of other countries are getting a much greater broadband value in the form of more available megabits for less money. According to the ITU, the digital opportunity afforded to U.S. citizens is not even near the top: in fact, it is 21st in the world! This is more than a public relations problem. It is a major productivity problem, and our citizens deserve better. Indeed, if we do not do better for everyone in America on this score, then we will all suffer economic injury as a result. In this broadband world, more than ever, we are truly *all* in this together.

Some have argued that the reason we have fallen so far in the international broadband rankings is that we are a more rural country than many of those ahead of us. If that is the case, and since geography is destiny and we cannot change ours, rather than merely curse the difficulty of addressing rural communications challenges, we should redouble our efforts and get down to the business of addressing and overcoming them.

I am concerned that the lack of a comprehensive broadband communications deployment plan is one of the reasons that the U.S. is increasingly falling further behind our global competitors. Virtually every other developed country has implemented a national broadband strategy. This must become a greater national priority for America than it is now. We need a strategy to prevent outsourcing of jobs overseas by promoting the ability of U.S. companies to "in-source" within our own borders. Rural America and underserved urban areas have surplus labor forces waiting to be tapped. No one will work harder, or work more efficiently, than Americans, but many are currently without opportunities simply because the current

communications infrastructure is inadequate to connect them with a good job. That situation must improve.

A National Broadband Strategy for All Americans

We must engage in a concerted and coordinated effort to restore our place as the world leader in telecommunications by making available to all our citizens affordable, true broadband, capable of carrying voice, data and video signals. An issue of this importance to our future warrants a comprehensive national broadband strategy that targets the needs of all Americans, including those in Rural America. A true broadband strategy should incorporate benchmarks, deployment timetables, and measurable thresholds to gauge our progress.

We need to set ambitious goals and shoot for real high-bandwidth broadband deployment. We should start by updating our current anemic definition of high-speed of just 200 kbps in one direction to something more akin to what consumers receive in countries with which we compete, speeds that are magnitudes higher than our current definitions.

We must take a hard look at our successes and failures. We need much more reliable, more specific data than the FCC currently compiles so that we can better ascertain our current problems and develop responsive solutions. Giving consumers reliable information by requiring public reporting of actual broadband speeds by providers would spur better service and enable the free market to function more effectively.

We must redouble our efforts to encourage broadband development by increasing incentives for investment, because we will rely on the private sector as the primary driver of growth. These efforts must take place across technologies, so that we not only build on the traditional telephone and cable platforms, but also create opportunities for deployment of fiber-to-the-home, fixed and mobile wireless, broadband over power line, and satellite technologies. We must work to promote meaningful competition, as competition is the most effective driver of innovation, as well as lower prices. Only rational competition policies can ensure that the U.S. broadband market does not devolve into a stagnant duopoly, which is a serious concern given that cable and DSL providers now control approximately 95 percent of the residential broadband market.

There also is more Congress can do, outside of the purview of the FCC, such as providing adequate funding for Rural Utilities Service broadband loans and grants; ensuring RUS properly targets those funds; providing tax incentives for companies that invest in broadband to underserved areas; devising better depreciation rules for capital investments in targeted telecommunications services; investing in basic science research and development to spur further innovation in telecommunications technology; and improving math and science education so that we have the human resources to fuel continued growth, innovation and usage of advanced telecommunications services.

Two other critical steps toward a national strategy, elaborated upon below, are properly channeling universal service and promoting spectrum-based services for Rural America.

Universal Service: Evolving for the Broadband Age

Congress and the Commission recognized early on that the economic, social, and public health benefits of the telecommunications network increase exponentially for all subscribers with the addition of each new subscriber. Federal universal service continues to play a vital role in meeting our commitment to connectivity, helping to maintain high levels of telephone penetration and increasing access for our nation's schools and libraries. With almost a decade behind us since the 1996 Act, the FCC is re-examining almost every aspect of our federal universal service policies, from the way that we conduct contributions and distributions, to our administration and oversight of the fund. As this review has gone forward, I have worked hard to preserve and advance the universal service programs as Congress intended.

Yet, broadband take rates remain comparatively low in Rural America. Among households connected to the Internet, roughly 44 percent of urban households make use of broadband access. In contrast, only 25 percent of rural households with connections to the Internet use broadband. This disparity – confirmed as well by GAO in a 2006 report on broadband -- is perhaps not surprising given that rural residents tend to be less likely to use the Internet, regardless of the technology. The Pew Foundation has suggested that this may be due in part to presence of older and less wealthy populations in Rural America. If this is true, we may expect the same factors to affect the roll-out of broadband in rural areas. But, even if slow broadband uptake truly is only a symptom of them today, we must not allow the lack of broadband access to become an affirmative *cause* of the “graying” and relative impoverishment of Rural America in the future.

Ensuring the vitality of universal service will be particularly important as technology continues to evolve. Increasingly, voice, video, and data will flow to homes and businesses over broadband platforms. In this new world, as voice becomes just one application over broadband networks, we've got to have ubiquitous broadband pipes to carry the most valuable IP services everywhere. Without such broadband networks, IP services can't reach their full audience or capability. The economic, public health, and social externalities associated with access to broadband networks will be far more important than the significant effects associated with the plain-old-telephone-service network, because broadband services will touch so many different aspects of our lives. So, it is important that the Commission conduct its stewardship of universal service with the highest of standards and that we ensure that universal service evolves to promote advanced services, which is a priority that Congress has made explicitly clear.

Wireless: A Critical Source of Broadband Services

One of the best opportunities for promoting broadband, particularly in rural areas, and providing competition across the country, is in maximizing the potential of spectrum-based services. The Commission must do more to stay on top of the latest developments in spectrum technology and policy, working with both licensed and unlicensed spectrum. Spectrum is the lifeblood for much of this new communications landscape. The past several years have seen an explosion of new opportunities for consumers, like Wi-Fi, satellite-based technologies, and more

advanced mobile services. We now have to be more creative with what I have described as “spectrum facilitation.” That means looking at all types of approaches – technical, economic or regulatory – to get spectrum into the hands of operators ready to serve consumers at the most local levels possible.

Of course, licensed spectrum has and will continue to be the backbone for much of our wireless communications network. We are already seeing broadband provided over satellite, new wireless broadband systems in the 2.5 GHz band and the increasing deployment of higher speed mobile wireless connections from existing cellular and PCS providers.

During our review of the bandplan in advance of the auction last year of 90 MHz of new spectrum for the Advanced Wireless Service, I pressed for the inclusion of smaller blocks of licenses. I thought that smaller license blocks would improve access to spectrum by those providers who want to offer service to smaller areas, while also providing a better opportunity for larger carriers to more strategically expand their spectrum footprints. Our decision to adopt smaller license blocks was well received by a number of carriers and manufacturers.

The Commission has a historic opportunity in the upcoming 700 MHz auction to facilitate the emergence of a “third” broadband platform that will ensure consumers everywhere the benefits of a high-quality wireless broadband network. As we finalize our rules for the 700 MHz auction, the biggest and most important auction we will see for many years to come, it is critical we build on the lessons learned from our previous auctions to provide a diverse group of licenses so that all bidders have an opportunity to obtain licenses that best match their business plan. While I have supported rules to facilitate the secondary market for spectrum rights and licenses, I think we are best served by providing a wide variety of license sizes at the initial auction when appropriate.

I have also worked closely with the Wireless Internet Service Provider (WISP) community, which has been particularly focused on providing wireless broadband connectivity in rural and underserved areas. I even had the opportunity to host an extraordinary FCC event in my home town of Rapid City a few years ago to highlight the potential of rural WISPs. Unlicensed broadband services can be a big part of the rural solution. Unlicensed spectrum is free and, in most rural areas, lightly used. It can be accessed immediately, and the equipment is relatively cheap because it is so widely available.

We can do even more for rural WISPs and other unlicensed users. I have heard from operators who want access to additional spectrum and at higher power levels. And the Commission has been doing just that. We have opened up 255 megahertz of spectrum in the 5 GHz band – more spectrum for the latest Wi-Fi technologies – and are looking at ways to increase unlicensed power levels in rural areas.

I also have pushed for flexible licensing approaches that make it easier for community-based providers to get access to wireless broadband opportunities. We adopted rules to make 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. It makes the spectrum available on a licensed, but non-exclusive, basis. I have spoken with representatives of

the Community Wireless Network movement, and they are thrilled with this decision and the positive impact it will have on their efforts to deploy broadband networks in underserved communities around the country.

We have also made spectrum available in the 70/80/90 GHz band for enterprise use. While you may not be familiar with this spectrum block, it can be used to connect buildings with 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 the spectrum is available to anyone holding a license. While others supported an auction, I successfully argued against them in this unique case, because I was concerned that auctions would raise the price of access and shut out smaller licensees. In fact, one company now is installing five links for the city of Sioux Falls. The links will be used for a number of City services, including public works, police and fire departments, as an alternative to fiber.

We are now even looking to allow unlicensed operations in unused television spectrum bands – the so-called “white spaces.” It is a challenging proposal, but one that could allow for unlicensed use of spectrum that has exceptional propagation qualities, which can be particularly useful in rural areas. We have an obligation to look at the interference implications of such a proposal, and it will be a major proceeding at the Commission this upcoming year.

Conclusion

Congress has charged the Commission with ensuring that the American public stay well-connected and well-protected, directing us in the very first section of the Communications Act with making available to “all the people of the United States” rapid, efficient Nation-wide communications services. That starts with a continuing commitment to connectivity, and nowhere is this more important than in Rural America.

If the horse and wagon were the key tools that allowed my ancestors to settle the west, broadband networks will be a big part of maintaining and restoring the vitality of our rural communities in the future. Let us face this new frontier of silicon and fiber as bravely and resourcefully as they did the original frontier of forbidding forests and vast prairies. If we do, I know we will experience similar success and the proper place in the history of American progress. For the sake of ourselves, our children, and this great country, may we be as bold and successful in our own pioneering endeavor as they were in theirs. Thank you for your leadership on rural broadband and for the opportunity to testify before you today.