STATEMENT OF
JONATHAN S. ADELSTEIN
COMMISSIONER, FEDERAL COMMUNICATIONS COMMISSION

BEFORE THE
COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION
UNITED STATES SENATE
LITTLE ROCK, ARKANSAS

August 28, 2007

Thank you, Senator Pryor, for inviting me to testify about one of the critical challenges confronting our Commission and the country: ensuring the deployment of affordable, high speed broadband infrastructure to every corner of this country. I would also like to thank Governor Mike Beebe, the Arkansas Chamber of Commerce, the many fine panelists who will share their insight, and the citizens of Arkansas for welcoming us to your state today.

Senator Pryor, I want to commend you and the Committee for the vital leadership role you have taken on broadband and technology issues, which is evidenced through convening this hearing and also through your work in Washington, D.C. As Co-Chairman of the Senate Democratic High-Tech Task Force, you have recognized the importance of promoting technological innovation and advanced telecommunications for providing good jobs and enhancing our standard of living.

I appreciate your focus on these concerns, which are so critical to the economic and social prosperity of our communities. You understand the need to maximize the potential of every citizen to contribute to our social, cultural and economic life through communications. We must tap the talents of everyone in America, whether they live in cities or in rural 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 some of the ways we at the FCC, you in Congress, and all of the participants here today can achieve this ambitious goal.

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.

The Role of Broadband for our Nation's Communities

We are only scratching the surface of the opportunities that broadband can bring. We stand at the threshold of a revolution in the applications that will ride over broadband infrastructure. By expanding the reach of advanced communications technologies, we can bring new hope to many communities where it is in short supply.

For a long time, the U.S. was the undisputed world leader in communications technology. Yet, in recent years, we have tumbled out of our historic global position. I am particularly concerned that we give our communities the tools that they need to compete in a more global era. We need greater leadership on this issue at the federal, state, and local levels. I am encouraged that the Senate Commerce Committee has heightened its attention to this issue over the past year.

Hearings like this play a key role. Since I joined the Commission, I have traveled across the country and seen the impact of broadband on the economic, health, public safety, education, social and democratic opportunities of our citizens. Yet, this is the first time I have ever been invited to a Congressional field hearing that focuses on the impact of broadband on a particular state. That is testament to the kind of leadership that can propel Arkansas forward to the front ranks of broadband deployment. Every state, and the nation as a whole, needs this kind of initiative by its leaders.

I am pleased to share some of my thoughts, and am also looking forward to hearing the testimony of the many Arkansas state and local government officials, your regional leadership, representatives of the educational and telemedicine communities, providers, and others who will testify today. Together, we can learn more about the opportunities and challenges faced here in Arkansas and forge the path toward progress.

Right now, broadband is creating economic opportunities that were previously unattainable, and the potential is even greater. Broadband can connect entrepreneurs to millions of new distant potential customers, facilitate telecommuting, and increase productivity. Much of the economic growth we have experienced in the last decade is attributable to productivity increases that have arisen from advances in technology, particularly in telecommunications. These new connections increase the efficiency of existing business and create new jobs by allowing news businesses to emerge and new developments such as remote business locations and call centers. The opportunities for rural areas that have seized the initiative are enormous.

Broadband technologies are being harnessed in ways that 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 saw in events like the devastation of Hurricane Katrina, 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 our most remote and economically challenged communities. I have seen communities leveraging broadband infrastructure to bring jobs: opportunities that serve not only as important sources of employment, but also as training grounds for the young people of the community. 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. The problem I often hear that it is harder to keep young people in rural areas these days because they sense a palpable lack of local opportunities. Broadband communications can benefit our communities 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. Broadband can help our young people who want to live where they grew up, and enjoy that quality of life, have new opportunities for work and advancement.

Efforts to draw attention to the importance of high speed Internet access are critical. I understand that Arkansas recently adopted a unique public-private partnership -- Connect Arkansas -- to enhance broadband availability and subscribership. Such public-private partnerships can play an important role, educating businesses and consumers about the importance of broadband and aggregating demand so that there will be incentives for providers to build. It worked well in Kentucky, and it can work well in Arkansas.

Broadband 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.

Even 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 Mississippi Delta, 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 us.

We've made progress, many providers are deeply committed, and there are positive lessons to draw on. Yet, 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. While some have protested the international broadband penetration rankings, the fact is the U.S. has dropped year-after-year. This downward trend and the lack of broadband value illustrate the sobering point that when it comes to giving our citizens affordable access to state-of the-art communications, the U.S. has fallen behind its global competitors.

There is no doubt about the evidence that citizens of other countries are getting a much greater broadband value in the form of more megabits for less money. A recent OECD report ranked U.S. 12th in broadband value. According to the ITU, the digital opportunity afforded to U.S. citizens is 21st in the world. For small businesses, those in rural areas, and low income consumers, the problems can be even more acute. 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, then we will all suffer economic injury. In this broadband world, more than ever, we are truly all in this together and we need to tap all of our resources.

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, we should redouble our efforts and get down to the business of addressing and overcoming this challenge.

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

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 affordable, truly high-bandwidth broadband. 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, specific data than the FCC currently compiles so that we can better ascertain our current problems and develop responsive solutions. The FCC should be able to give Congress and consumers a clear sense of the price per megabit, just as we all look to the price per gallon of gasoline as a key indicator of consumer welfare. 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. Another important tool is better mapping of broadband availability, which would enable the public and private sectors to work together to target underserved areas. Legislation under consideration by leaders in both the House and the Senate would enable us and other agencies like the Census Bureau to make enormous progress on this front. The Connect Arkansas initiative will help in this state, and a similar approach should be adopted nationwide.

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 96 percent of the residential broadband market. We must also work to preserve the open and neutral character that has been the hallmark of the Internet, in order to maximize its potential as a tool for economic opportunity, innovation, and so many forms of public participation.

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, and establishing new grant programs supporting public-private partnerships that can identify strategies to spur deployment; 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.

What is sorely needed, but fortunately in evidence here today, is real leadership at all levels of government, working in partnership with the private sector, to restore our leadership in telecommunications. This type of attention is needed today on a national scale. Much as we focus on Arkansas, today, a National Summit on Broadband -- or a series of such summits -- mediated by the federal government and involving the private sector, could focus the kind of attention that is needed to restore our place as the world leader in telecommunications.

Two other critical steps toward a national strategy, elaborated upon below, are properly channeling universal service toward broadband 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 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.

We need to make broadband the dial-tone of the 21st Century. 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 Internet Protocol (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 now 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. This is the biggest and most important auction we will see for many years to come. While the Commission recently adopted auction rules that reflect a compromise among many different competing interests, I am hopeful that there will be opportunities for a diverse group of licensees in the 700 MHz auction and that our more aggressive build-out requirements will benefit consumers across the country. We also put in place a new approach to spectrum management by adopting a meaningful, though not perfect, open access environment on a significant portion of the 700 MHz spectrum. This decision represents an honest, good faith effort to establish an open access regime for devices and applications that will hopefully serve consumers well for many years to come.

Unlicensed broadband services are an intriguing avenue for many underserved communities because 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. 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.

But we can always do 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 in my home state of South Dakota. The links will be used for a number of City services, including public works, police and fire departments, as an alternative to fiber.

Conclusion

Congress has charged the Commission with ensuring that the American public stay well-connected, 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, for all our citizens. For the sake of ourselves, our children, and this great country, we must be bold and successful in this endeavor. So, thank you for your leadership on this important issue, for inviting me to Arkansas to hear from this impressive line-up of witnesses, and for the opportunity to testify before you today.