

**Remarks of
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University of Kansas
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**RURAL LANDS OF OPPORTUNITY:
BROADBAND DEPLOYMENT IN AMERICA'S HEARTLAND**

Thank you for the opportunity to join you today to discuss the challenges and opportunities facing rural America in meeting the telecommunications needs of the 21st Century. I appreciate Representative Tom Sloan's tireless efforts to put together this forum of distinguished legislative, regulatory, and industry experts from all over the state. I also applaud Senator Brownback's leadership in advancing broadband deployment issues in the U.S. Senate. As a co-founder of the Congressional Wireless Caucus, he is one of the foremost supporters of new technologies which benefit Kansas and all Americans. I look forward to continuing the dialogue at all levels – with federal, state, and local government leaders – to ensure that broadband services are deployed expeditiously to rural areas.

Importance of Broadband Deployment in Rural America

Across America, the availability of ubiquitous, reliable, high-speed broadband access is changing the way we work and live. Computer ownership and Internet access have grown remarkably. According to the Pew Internet & American Life Project, nearly two-thirds (63%) of American adults use the Internet and that figure climbs to nearly 75 percent of those between 12 and 17.

High speed broadband connections are growing quickly as well. Nielsen Net Ratings recently reported that 50 million Americans now access the Internet from home using high speed connections. When I became Chairman, that number was a mere 12 million. And, if we need any further evidence that high speed Internet connections are approaching a tipping point, consider that during the six months between last May through November, 10 million people were added to the broadband ranks.

The Internet also is increasingly becoming a critical source of information. Between 2000 and 2002, the online news population grew by 50 percent; those seeking health information online grew by 59%; the number who used government web sites grew by 56%; the number using e-commerce grew by 63%; and online banking grew 127 percent.

As the pace of broadband deployment continues to accelerate, we must work together to ensure that individuals living in rural America are not left behind in the digital migration. Rural America in some ways has the most to gain from broadband deployment. Why are young people sometimes tempted to leave rural America – often times because jobs have migrated to urban areas or because of concern over educational opportunities or quality health care. Broadband may radically change these calculations. Broadband infrastructure makes it easier to get a high paying job in McPherson or Garden City instead of moving to Kansas City or Denver. It means doctors in those cities can help patients in Abilene and Pratt saving patients the long drive and anxiety associated with being so far away from specialists’ expertise. And it means that the rich world of content on the Internet can just as readily be a part of the educational curriculum in Concordia and Iola as it is in Chicago or Washington DC.

Broadband can be the ultimate economic, educational and medical growth engine for rural America. Advances in broadband services, offered over telephone and cable wires, licensed and unlicensed wireless connections, satellite, digital television, and even over ubiquitous electrical power lines offer the opportunity to significantly improve the quality of life in rural America. It is critical that rural America be included in the path towards digital migration. And I can assure you that my fellow Commissioners and I are fully committed to this vision for rural America.

This morning, I had the opportunity to meet and listen to a number of providers who are working to bring broadband services to communities throughout Kansas. This afternoon, we will explore how we can cooperate on policy issues to ensure that the economic and social benefits of broadband technologies are realized in every corner of the state and throughout rural America. Together, we can and will do more.

I want to work cooperatively with state and local governments and regulators, industry, Congress and the Administration toward a single goal: completing the work necessary to put in place the broadband infrastructure necessary for a connected society that gives us more choices, more value, more control, and more opportunity.

- **Broadband Deployment Fosters Economic Development**

The availability of broadband access is critical in attracting new businesses to rural areas and giving existing businesses the availability to compete with firms in more urban settings. With broadband access, worker productivity increases, jobs are created and wages grow. When rural schools can provide their students with the same resources and information as those in urban areas, businesses can benefit from a more highly skilled workforce, and then one is less likely to need to look elsewhere for jobs.

Here in Kansas, broadband connections could provide significant benefits to farmers and the agricultural community as well. Broadband access creates a link between buyers and sellers, bridging great distances, facilitating communications and enabling products to get to market more quickly. It also enables farmers to monitor conditions

remotely, increasing productivity and efficiency. Broadband also provides more opportunities to earn “off-farm income,” to supplement revenues.

- **Broadband Deployment Builds Our Communities**

Broadband deployment helps us build stronger communities. For instance, advances in health care and advantages in education, through telemedicine and distance learning applications, are possible through the deployment of broadband technologies in rural communities. The FCC’s rural health and schools and libraries universal service programs aim to promote the availability of those applications through special funding programs. In Fiscal Year 2003, schools and libraries in Kansas received funding commitments of more than \$13 million. Rural health care providers in Kansas received funding commitments of approximately \$48,000. Under our leadership, we have worked to ensure that those programs are fully utilized and that the funding mechanisms supporting the programs continue to be modernized for this age. Just last November we reformed our rural telemedicine program to ensure that more money ended up in the hands of those that need it and helped to cut down on the needless red tape that had slowed use of the grants. Every community must have the opportunity to reap the benefits of these critical universal service goals.

Telemedicine Applications

Telemedicine creates medical expertise on demand for people living in rural America -- bringing millions of Americans from rural and remote parts of the country closer than ever to medical specialists and the leading experts in the medical field.

Innovations in computing and telecommunications technology, however, allow highly specialized medical experts to assist on-location medical personnel to perform many medical procedures even though hundreds or even thousands of miles separate the medical expert and the patient. I appreciate the leadership of Rear Admiral Mary Couig who is working in this area.

Recently, I witnessed the transformative potential of telemedicine when I visited the University of Virginia’s Office of Telemedicine. There, I saw firsthand not only the types of technologies that doctors can use to improve health care, but also the telecommunications services – and service providers – that are making telemedicine a reality in rural areas of America and across the globe. I look forward to learning more about the University of Kansas’ efforts to employ telemedicine technologies throughout rural Kansas.

Homeland Security

The migration to digital broadband provides the local public safety community, on whom we rely for our protection, the information they need to assess and act on threats, and the ability to communicate with one another and with the public at large. From E911, which allows police, fire, and EMS the ability to respond quickly to those in

danger, to the ability of small police and sheriff's departments to have immediate access to databases previously available to larger departments in urban settings, broadband deployment is a critical tool for the maintenance of a secure homeland.

Distance Learning Applications

Through the FCC's schools and libraries program, universal service funding is bringing educational opportunities to more classrooms than ever before. Broadband access is enabling students to obtain real time educational instruction from qualified educators in many subjects, where that instruction might not be currently available in the local community. Students can communicate with and learn from people and communities hundreds and even thousands of miles away.

The FCC recently had the opportunity to see how distance learning applications are making a difference in the education of students in rural Alaska. Through broadband connections, students are able to communicate with classrooms in neighboring villages, participate in language and cultural preservation programs, and tap into educational resources located hundreds of miles from home. But we need not travel thousands of miles to see first-hand how broadband makes a difference in educational opportunities. In your own state, through the KanEd initiative, significant strides are being made in connecting almost 900 schools and libraries throughout Kansas to take advantage of these important distance learning opportunities. I applaud these efforts and encourage their further expansion across this nation.

While the benefits of broadband deployment in rural America are innumerable, the Commission also recognizes that there are unique funding and technological challenges in bringing basic and advanced telecommunications services to rural communities. Through the universal service programs that the FCC oversees, the Commission provides support to offset the high cost of providing service in rural areas.

I also commend Administrator Hilda Legg and her team at the Rural Utilities Service for their efforts in administering the loan and grant programs to fund broadband deployment in rural America. Last September, for example, RUS funded more than \$11.3 million in broadband grants, including a grant to Pixius Communications to provide Internet access in Walton, Kansas.

Recognizing RUS' significant funding role, last year, we announced a joint effort to facilitate the availability of wireless services in rural areas. Through this partnership, we seek to coordinate our activities and outreach on programs and financial assistance for rural communities, to encourage greater access and deployment of wireless services throughout rural America. For example, we are working to harmonize our rules and regulations, to combine our outreach efforts and develop a joint *Model Wireless Broadband Community Project*.

I know Administrator Legg shares my passion for ensuring that broadband reaches all Americans by the most efficient means possible – be it wireline or wireless,

satellite or cable – the most important thing is that the personal empowerment that comes from access to the Internet is a part of every American child’s experience. We are searching for the broadband infrastructure that gets the most broadband deployed per your tax dollar spent.

And we are looking for more partnering opportunities to get this done – with our sister federal agencies; state, local and tribal governments; and industry. Working together, through these types of partnerships, we can and will continue to make a difference in addressing the funding challenges in bringing 21st Century telecommunications services to rural communities.

Similarly, we must continue to work together to address the technology obstacles that many rural areas face in bringing broadband services to their communities. Broadband applications can be delivered over a variety of technology platforms. The challenge for rural America is to identify technology and service options and tailor solutions to meet the specific needs of the community. It is not the Commission’s role to select technology winners or losers, but to create a competitive landscape that allows innovation to flourish.

Through the proceedings we opened just last week the Commission will continue to examine policies to advance cutting-edge broadband technologies and services. For example, broadband over powerline technology (BPL) has the potential to speed access to every home already on the power grid using existing lines. BPL could also improve the provision and management of electric power systems, enhance homeland security, and protect vital elements of our Nation’s critical infrastructure.

Similarly, IP-enabled technology may provide an excellent opportunity to leverage broadband deployment to bring competition and advanced features to voice services. Last week, the Commission took the first steps towards building a minimally regulated regime for these new services that will ensure they spend their money on deployment, not filling out forms for bureaucrats in Washington. These new providers can spur demand for broadband connections and new services and increase U.S. competitiveness in the global marketplace as well as in rural America. Working together, the Commission will ensure the promise these new innovative technologies and services is realized for all Americans.

The FCC’s Rural Action Plan

Although I believe many of our policies help build connectivity for rural America, we have also established a more targeted set of programs designed specifically to assist with rural deployments. This Commission has put a high priority on making sure that Americans living and working in rural communities have access to the same kind of high quality infrastructure that is available in urban and suburban America. Last August, I announced an action plan to spur the deployment of advanced telecommunications services in rural America. The Rural Action Plan:

- Create Licensed Wireless Policies that Encourage Rural Deployment – In a proceeding we initiated last September we began to look at ways to lower regulatory and market barriers and facilitate access to capitol for providers serving rural areas. Our spectrum leasing initiative will make spectrum more easily accessible to smaller operators like those serving parts of rural America that may be overlooked by larger carriers. We are also considering additional flexibility in our licensing and service rules for rural areas, for example by allowing higher power limits, and creating smaller license areas in order to decrease infrastructure costs to rural providers.
- Rural “Wireless Internet Service Providers” (WISPs)
 - We are looking at ways to make greater use of unlicensed spectrum for broadband access in rural areas. These include the use of new technologies such as smart antennas, and streamlining our equipment approval in order to bring innovations to the market faster and at lower cost.
- Satellite policy
 - Satellite service is capable of reaching every American, bringing the same kind of advanced services enjoyed in the urban areas to even in the most remotely located parts of the county., and
- Establish a comprehensive outreach program to foster communication and coordination among all stakeholders on rural broadband deployment.

The Rural Action Plan will ensure that rural Americans can realize the opportunities of the digital communications revolution, and fulfill our statutory mandate to improve communications access and innovation throughout the country.

In addition, we have held a number of public forums to highlight technology innovations and solutions in rural America. Most recently, we held a forum on rural WISPs that highlighted how innovative companies were using wireless technologies to bring broadband services to its customers. I commend Pixius Communications for their contribution to the success of that forum.

A few weeks ago we held a satellite rural forum to discuss how affordable satellite technology could be deployed to deliver enhanced broadband services in rural areas. Through these informative forums, the Commission learned important information about how a variety of technology approaches, business models, applications and government programs can help foster rural broadband and how our rules and regulations impact deployment in rural areas.

Today’s summit reflects our continued commitment to bring the benefits of competition, digital technology and innovation to rural America, in partnership with other federal agencies, states, and industry. We look forward to establishing long-term

partnerships with consumers, industry and government leaders in rural areas to tackle the technology issues facing rural America.

I am eager to continue our discussion this afternoon to explore on a more “granular” level how we can work together – through federal, state, and private partnerships – to further broadband deployment throughout Kansas and elsewhere in rural America.

The digital migration is for all Americans. I look forward to working together to insure that your State’s citizens realize its promise and have tomorrow’s technologies for consumers today.