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RURAL TELECOMMUNICATIONS

HEARING

BEFORE THE

COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION UNITED STATES SENATE

ONE HUNDRED NINTH CONGRESS

SECOND SESSION

MARCH 7, 2006

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SENATE COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION

ONE HUNDRED NINTH CONGRESS

SECOND SESSION

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RURAL TELECOMMUNICATIONS

TUESDAY, MARCH 7, 2006

U.S. SENATE,
COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION,
Washington, DC.

The Committee met, pursuant to notice, at 10:05 a.m. in room SD–562, Dirksen Senate Office Building, Hon. Ted Stevens, Chairman of the Committee, presiding.

OPENING STATEMENT OF HON. TED STEVENS, U.S. SENATOR FROM ALASKA

The CHAIRMAN. Let me welcome you all. We've had a series of hearings on communications, and today we're going to look at the crucial issue of rural communications.

This hearing will address the issues other than the Universal Service Fund, which we already held hearings on. These issues that we will listen to today relate to ensuring that all Americans, whether they live in urban, rural, or insular areas, have access to basic and advanced communications at comparable quality and at reasonably comparable rates.

We have a range of issues: the roles and grants by the Department of Agriculture; intercarrier compensation, the system of a phone company paying another phone company to carry its traffic; the potential for the use of unlicensed spectrum to accelerate broadband deployment; and the challenges of improving communications service on tribal lands and in very rural areas. All of these topics have our attention, but the issue of intercarrier compensation is particularly important as we consider revising our communications law. Intercarrier compensation reform has huge implications for all carriers, but small rural phone companies, who rely heavily upon the revenues from access charges, stand to lose the most if reform is not carefully crafted. Also, the issue of deploying broadband to all of America remains one of special concern to this committee.

Now, our Co-Chairman is not here today. If he has a statement, we'll place it in the record and call on Senator Burns.

Do you have an opening statement?

STATEMENT OF HON. CONRAD BURNS, U.S. SENATOR FROM MONTANA

Senator BURNS. Well, I do. And while we're waiting on the Under Secretary of Agriculture, I would say that Tom Dorr and I were on RFDTV last night talking about this very subject of communications in rural areas.

If you can remember back, in the 1996 Act, whenever—we were all highly involved in that—we just had a dickens of a time getting any broadband language into that bill, let alone rural or whatever. And—because the Internet—that's only 10 years ago—was not really high on anybody's radar screen here in Congress. Those of us who represent and live in rural areas knew how important it was, because we were still on dial-up. It was really primitive, most of us paying long-distance charges plus, paid for the service. And we knew that it would one day be the cornerstone of economic development in rural areas. So, this isn't our first rodeo when we start talking about communications in rural areas.

Technology provides a greater chance to live where you want to now and still hold a good job. Many people, tired of the congestion of highways, prefer not to commute; they want to telecommute, and that was a big subject here not too long ago. So, if a community does not have broadband across this country, then they are at a huge competitive disadvantage. It is just that simple.

I think it was pointed out last night on the television show on that panel. We went for an hour talking about what is important and what is not important for our rural areas. And it came down to the bottom line, if you just don't have broadband communications, you just can't get there.

Although Internet penetration has grown in rural communities, the gap still exists between them and their urban communities. The gap appears to be narrowing. According to one study released in February of this year, 24 percent of rural Americans had high-speed Internet communications at home in 2005, compared to 39 percent of normal adult Americans in the more urban areas. Now, that sends a positive message that we're growing. But we can do better.

When we talked about the RUS section of the farm bill, there was great debate on how much money we should invest in rural America through the Rural Utilities Fund. And now that becomes even more important, and I would imagine it will be talked about again next year, in the year 2007, when we rewrite the farm bill.

I'm particularly concerned about telephone and Internet service on tribal lands. I have seven reservations in my state, and they're still behind the time, because of deployment of broadband in their areas. And according to the GAO report, only 69 percent of Native American households on tribal lands had telephone service, compared to 98 percent for the rest of the country. And, of course, when the Chairman said, this morning, that we've already had a hearing on Universal Service, Universal Service plays a key role in order to get these services onto our reservations. And I would surmise that Universal Service will probably play the largest role in the deployment of broadband into our tribal lands and rural areas.

So, we need to provide some incentives for companies to continue to expand broadband facilities and ensure that all Americans have access to Internet regardless of where they live. And we can provide such incentives if we can continue to support and show the strong support we have for Universal Service. It's just as important as the broadband deployment. Universal service is just as important as voice. And it's just as important as electricity was, way back in the 1930s, of wiring America for electricity.

So, I applaud the Chairman for having this hearing this morning. I hope the information that we gather here would point us in a direction making policy where that deployment can be made into rural areas.

And I thank you. And I will submit the rest of my statement for the record, Mr. Chairman.

[The prepared statement of Senator Burns follows:]

PREPARED STATEMENT OF HON. CONRAD BURNS, U.S. SENATOR FROM MONTANA

Broadband deployment is more vital than ever for the future of rural areas like Montana. Access to the Internet is indispensable in providing the same opportunities for rural Americans. Without Internet access rural residents cannot participate in the Nation's educational and health care systems that exist for Americans in urban areas. Without Internet access, every American cannot fully participate in the Internet economy.

Technology provides a greater chance to live where you want and hold a good job. Many people, tired of the congestion on the highways, prefer to telecommute. If a community doesn't have broadband, they're at a huge competitive disadvantage—it's that simple.

In the 21st Century, how do rural areas compete against low-wage foreign workers? We ensure that U.S. workers can obtain broadband services at affordable prices no matter where they live. The GAO recently agreed—recommending the government invest in more broadband infrastructure to improve the U.S. workforces' human capital and skill level.

Although Internet penetration has grown in rural communities, a gap still exists between them and suburban and urban communities. The gap appears to be narrowing. According to a Pew Internet & American Life Project Survey released in February of this year, 24 percent of rural Americans had high-speed Internet connections at home in 2005, compared with 39 percent of non-rural adult Americans. In 2003, only 9 percent of rural residents had broadband at home.

That, to me, sends a positive message about the availability of broadband access in rural areas and the demand for those services—but we can do better. The U.S. currently lags behind some countries in broadband access—this is unacceptable.

I am also particularly concerned about telephone and Internet service to tribal lands. According to a recent GAO report, only 69 percent of Native American households on tribal lands had telephone service, compared to 98 percent of the rest of America.

And we don't even know Internet subscribership statistics, apparently because the information is not currently collected. That is why I am an original co-sponsor of legislation that will require this information to be kept.

We need to provide incentives for companies to continue to expand broadband facilities and ensure that all Americans have access to the Internet regardless of where they live.

One way I'll provide such an incentive is to continue my support of Universal Service. The nearly 100-year commitment Congress and this Nation have had to Universal Service has been indispensable in Internet deployment in rural areas.

Recently I proposed legislation, S. 2256—or the NetUSA bill—addressing Universal Service. My proposed legislation will speed up deployment of broadband to rural areas and preserve and improve Universal Service.

Wireless telecommunications is also a key component in deploying both voice and broadband services to rural America. In a letter last month to FCC Chairman Kevin Martin, I noted the importance to rural America of smaller spectrum licensing areas. Creating some smaller service areas for licensed spectrum would create an incentive to build-out in rural areas.

I applaud Chairman Stevens for scheduling this hearing, and look forward to working with my colleagues on issues that are so vital to the future of rural America.

The CHAIRMAN. Senator Dorgan?

STATEMENT OF HON. BYRON L. DORGAN,
U.S. SENATOR FROM NORTH DAKOTA

Senator DORGAN. Mr. Chairman, thank you very much.

We have an Energy hearing downstairs about three floors, and I'm going to have to go back to that hearing in a few minutes, but I wanted to, first of all, thank you for holding this hearing.

And I agree that the first and most important hearing is on Universal Service, for those of us that care about rural telecommunications. And we've had that hearing. Now we need, of course, to find a way to shore up that funding base and make sure Universal Service support is available and is going to be fixed in the longer term.

But I remain worried that in rural areas we will continue to be left behind in the information revolution and in rural telecommunications. My colleague from Montana pointed out that there is about 50 percent greater penetration on high-speed interconnections—Internet connections in the cities than there are in rural states—24 percent in rural America, to 39 percent in urban and suburban dwellers. Forty-nine percent, almost one-half, of North Dakotans have access to only one broadband provider. And so, there's still a lack of competition in those areas.

And it's also the case that medicine, education, and business all rely on advanced networks. And, to the extent that, in medicine, education, and business, as they rely on advanced networks, those networks are not as available in rural areas as they are in urban areas, it predicts and predetermines that the economic development and the economic opportunity will exist in urban areas. That's why there is such a desperate need here to make sure that we don't have a digital divide and we're not leaving areas behind.

Senator Burns and I wrote the Rural Broadband Loan Program in the 2002 farm bill that's worked in some cases, in fits and starts. But we need to do much, much more.

Senator Smith, Senator Pryor and I have introduced S. 1583, the Universal Service for the 21st Century Act, which also includes some provisions dealing with broadband.

Let me just, finally, point out that Mr. Mundie, from Microsoft is here. I know they've been vocal in the need for network neutrality in order to spur the growth of the Internet and broadband deployment. And I share that view. That's going to be another controversial issue before this committee.

And, finally, I notice the President of the Congress of American Indians is with us today. Again, I'm interested in testimony about how we can aid tribal governments in tribal lands in improving their conditions by advancing their telecommunications networks. And I look forward to working with them on that, as well.

Mr. Chairman, thank you very much.

The CHAIRMAN. Thank you.

Senator Ben Nelson?

STATEMENT OF HON. E. BENJAMIN NELSON,
U.S. SENATOR FROM NEBRASKA

Senator BEN NELSON. Thank you, Mr. Chairman. And, again, thank you for holding this hearing on rural telecommunications

issues. Obviously, coming from a state like Nebraska, I have more than a slight interest in the subject of this hearing today.

Obviously, telecom reform has to address the needs of every American consumer, regardless of where they live, whether it's urban or rural. Rural areas, like Nebraska and others, can't be left behind as the process moves forward. Technology is part of the answer.

And I'd like to ask that my complete statement be included as part of the record, and I'll abbreviate it.

The CHAIRMAN. It will be. All the statements will be printed in the record.

Senator BEN NELSON. Thank you.

Universal Service has really been, in many respects, an important deployment of communications infrastructure in the rural areas. And I believe we need to ensure the long-term viability of the Fund. So, I'm looking forward to how that'll be handled today.

Centuries ago—a century-plus ago, I should say—we went through rural electrification with the REA legislation, recognizing that rural areas are very often the last to be connected, whether it's for electricity, for Internet, whatever it may be. And one of the best ways we can deal with that is through the Universal Service Fund, but we need to modernize it to promote deployment of new communications technologies, as well. It's not just collecting dollars, it's making sure that they are appropriately spent.

In addition, I think technology holds a great deal of future for rural America, but I think we need to do the following three things:

We need to ensure the stability of Universal Service in order to preserve affordable telephone service in rural areas—obviously, they don't seem to pay for themselves, it's got to have that sort of protection—but also to continue support for schools, libraries, and rural healthcare providers, because so much more is involved than simply having, if you will, telephone service. It's telephone service for convenience, but also for other areas.

Second, we need to promote private investment in deployment of broadband, Internet, and other advanced telecommunications services in rural America.

Three, we need to encourage increased wireless coverage, an introduction of new wireless services to rural America.

And, of course, at the end of the day, we want to be sure that we are encouraging, promoting competition, which, in the final analysis, when competition will work, many of these problems will be satisfied. But, in the interim, I think, it's more than priming the pump, it's making sure that the pump works. So, I want to make certain that we focus on these issues today.

And thank you very much, Mr. Chairman.

[The prepared statement of Senator Ben Nelson follows:]

PREPARED STATEMENT OF HON. E. BENJAMIN NELSON,
U.S. SENATOR FROM NEBRASKA

Mr. Chairman, thank you for holding this hearing on rural telecommunications. Obviously, coming from Nebraska, I have a particular interest in the issues that will be discussed here today.

As the Committee holds hearings this year with an eye on developing telecom reform legislation, I am pleased with the attention that has been given to what telecom reform may mean for rural areas of the country.

I believe any telecom reform must address the needs of every American consumer regardless of where they live. Rural areas like Nebraska cannot be left behind.

Technology holds enormous economic promise to rural America, and innovation and competition must be encouraged in even the most remote areas of our country.

Last week, the Committee held hearings to explore how Universal Service is being challenged by technological changes and what possible reforms to the program should be considered.

Universal Service has been important for deployment of communications infrastructure in rural areas of this Nation, and I believe we must ensure the long-term viability of the fund.

Therefore, I look forward to the discussion today on Intercarrier Compensation, given the impact reforms in this area may have on the Universal Service Fund.

I believe Universal Service should be modernized to promote deployment of new communications technologies, such as broadband Internet, in rural areas.

I see the development and deployment of new communications technologies as a catalyst for economic development that can fuel growth and progress in rural states like Nebraska.

In order to tap into the infinite potential technology holds for rural America, I believe we need to do the following:

1. Ensure the stability of Universal Service in order to preserve affordable telephone service in rural areas, and for all Americans, as well as to continue support for schools, libraries and rural health-care providers.

2. Promote private investment in and deployment of broadband Internet and other advanced telecommunications services, in rural America.

3. Encourage increased wireless coverage and introduction of new wireless services to rural America.

We must ensure that everyone—regardless of where they live—benefits from modernization of our telecom laws.

Thank you, Mr. Chairman. I look forward to the testimony.

The CHAIRMAN. Thank you, Senator.

Senator Lott?

STATEMENT OF HON. TRENT LOTT,
U.S. SENATOR FROM MISSISSIPPI

Senator LOTT. Thank you, Mr. Chairman, for having this hearing as we continue to look at all of the various important areas that will be involved in our telecommunications legislation.

When we passed the Act in 1996, which I was very much involved in, we established a lot of rules and regulations under which the industry should play. We wanted to encourage more competition and technological development. Some people would be critical, but I think we succeeded beyond our wildest imagination. Technology has really changed the industry. So, we've got to pass legislation, new legislation, to make every American have better access and choice in this field.

I think it's important that we move on this in the next couple of months. And an important component will be what we do in the rural area. And, of course, we've been having hearings on the USF fund. And so, we'll continue to work on that.

There has been criticism directed at the USDA program regarding the Rural Broadband Access Loan and Guarantee Program. And we've got to find a way to ensure this program works as it was intended.

And we also must act to ensure that the Indian Country areas stop lagging behind the rest of the Nation. Therefore, we want to get some suggestions from you, Mr. Dorr. I look forward to hearing your testimony.

The CHAIRMAN. Thank you very much.

Mr. Dorr is here now. Mr. Dorr, we welcome you. All the statements of the witnesses today will be printed in the record in full as though read. We hope you will summarize yours as much as possible.

STATEMENT OF HON. THOMAS DORR, UNDER SECRETARY FOR RURAL DEVELOPMENT, DEPARTMENT OF AGRICULTURE; ACCOMPANIED BY JIM ANDREW, ADMINISTRATOR, RURAL UTILITIES SERVICE

Mr. DORR. I certainly will.

Let me apologize for being late. I've learned that when a tree falls in the forest, no one may hear it, but if they decide to cut up two of them in Washington, D.C., there's a traffic jam.

[Laughter.]

Mr. DORR. But, Chairman Stevens and Members of the Committee, first of all, I do apologize for being late. And I do appreciate the work that all of you are doing, especially this group of hearings regarding these communications issues and policies.

First, I would like to introduce the gentleman at my right, who is our administrator for the utilities programs responsible for administering the broadband program, Mr. Jim Andrew, native of Millen, Georgia. And I think he's going to bring a great deal of leadership to this program.

From my standpoint, I am especially pleased that you are holding this hearing today regarding rural telecommunications, which, in today's digital global economy, includes telephony, data transmission, video transmission, and even mobility.

A key opportunity for rural communities today arises from the communications revolution, especially broadband. The title of your hearing is "Rural Telecommunications," but, in today's digital global economy, broadband and telecommunications simply cannot be separated.

Information technology is producing the most dramatic decentralization of information in human history. Today, data can be easily shared across great distances. We no longer need everyone in the same building so they can talk or shuffle paper from desk to desk. Administrative structures, manufacturing and distribution networks, can, in fact, be decentralized. And, to a degree unprecedented in history, people are going to have choices about where to live and how to work. And the same is true of businesses. From a rural development perspective, this leverage is something I like to call "place." It lets you effectively live locally and compete globally.

Bottom line, broadband has the potential to make rural communities more competitive than they have been in generations. The Administration recognizes this potential, and we are making significant progress toward President Bush's call for universal affordable access to broadband technology by 2007.

Over the last 5 years Rural Development has, in fact, invested $4.2 billion toward this goal. The Rural Broadband Access Loan Program began making loans in 2003. And, to date, we have approved 53 applications, for an approximate total of $850 million. Demand for the program remains strong, and we have streamlined the application process to ensure that we respond to all applications as quickly and efficiently as possible. Our specialists have re-

viewed all applications received under this program, and one-third of those applications met the eligibility requirements and received approval for funding.

Over a third of the Community Connect Broadband Grants made by USDA Rural Development, 27 out of 75, have gone to tribal entities. As one example, the Havasupai, down in the bottom of the Grand Canyon, the last community in the United States to get mail by mule. Last year, USDA presented a check for $1.3 million to install wireless broadband Internet service. At the other end of the country, in Hughes, Alaska, USDA did the same for a native village of 78 people. Projects like this open the door to economic development. And, in Hughes, for example, the tribe is going to use its website to facilitate the sale of arts and crafts, as well as value-added seafood products, and residents are attempting to earn income by providing data-processing services. In addition, videoconferencing will enhance educational and healthcare options.

These investments play an important role in Rural Development's holistic approach to providing an array of capital investment that totals approximately $14 billion annually. We are helping rural families and businesses increase their economic opportunities, as well as to improve their quality of life.

The broadband program authorized by the Farm Bill is in the third year of loans. Rural Development is looking at both the process and the structure of the broadband program. With this review of all aspects of the broadband program, we will make the changes we can, and may suggest others to make this program more user friendly while protecting the taxpayer investment in broadband deployment.

This is a dynamic industry, as you've indicated, and you can listen to the news or look at the newspaper each day, and read of new inventions and new innovations. But broadband is not an end in and of itself, it is a tool to be used. It helps to bridge barriers of time and distance that rural America has faced through the years.

We are witnessing the changes one village or town, one business, one family at a time. Rural America is transforming. It's not going to happen overnight, but if we do our jobs right, I am convinced that smaller cities, smaller towns in rural areas, including tribal lands, have a very bright future ahead.

Thank you. And I'm prepared to answer any questions you may have.

[The prepared statement of Mr. Dorr follows:]

PREPARED STATEMENT OF THOMAS DORR, UNDER SECRETARY FOR RURAL DEVELOPMENT, DEPARTMENT OF AGRICULTURE; ACCOMPANIED BY JIM ANDREW, ADMINISTRATOR, RURAL UTILITIES SERVICE

Chairman Stevens and Members of the Committee, I appreciate the work you are doing and especially this group of hearings regarding communications issues and policies. From my standpoint, I am especially excited that you are holding this hearing today regarding rural telecommunications, which in today's digital global economy, includes telephony, data transmission, video transmission, and even mobility.

A key opportunity for rural communities today arises from the communications revolution, especially broadband. The title of your hearing is "Rural Telecommunications," but in today's digital, global economy, broadband and telecommunications cannot be separated.

Information Technology (IT) is producing the most dramatic decentralization of information in human history. Today, data can be shared easily across great distances.

We no longer need everyone in the same building so they can talk, or shuffle paper from desk to desk. Administrative structures, manufacturing, and distribution networks can be decentralized.

To a degree unprecedented in history, people are going to have choices about where to live and how to work. The same is true of businesses. From a rural development perspective, this leverages "Place." It lets you live locally and compete globally.

Bottom line, broadband has the potential to make rural communities more competitive than they have been in generations. The Administration recognizes this potential, and we are making significant progress toward President Bush's call for universal, affordable access to broadband technology by 2007.

Small businesses and individual knowledge workers in remote communities can now be just a click away from the global marketplace. With a modem, you can do business with anyone in the world. Through our rural telecommunications and broadband programs, USDA Rural Development is helping rural communities get connected.

What Have We Seen in the Rural Development Programs?

The programs under the authority of USDA Rural Development that play a role in bringing high-speed telecommunications services to Rural America include the telecommunications loan program, started in 1949, the Broadband Access Loan Program, authorized by the 2002 Farm Bill, the Community Connect Grant Program funded through the Distance Learning and Telemedicine Authority, and the Distance Learning and Telemedicine Grant Program, which makes use of high speed telecommunications.

The Rural Broadband Access Loan Program began making loans in 2003. To date, we have approved 53 applications for an approximate total of $850 million. Demand for the program remains strong, and we have streamlined the application process to ensure that we respond to all applications as quickly and efficiently as possible. Our specialists have reviewed all applications received under this program, and one-third of those applications met the eligibility requirements and received approval for funding. For Fiscal Year 2006, over $650 million in broadband loan funding is available for new applications.

The approved applications cover a wide range of technologies including digital subscriber line, fiber-to-the-home, hybrid fiber coax, wireless and broadband over powerline facilities. Of the loans that have been approved approximately 23 percent have been to start-up entities. Other entities receiving loans include existing independent telephone companies, cable companies and broadband companies.

Statistics compiled from the approved loans indicate that 41 percent of the communities included in the applications did not have access to broadband service, and 49 percent of the communities had limited access to these services. The average penetration rates (usage percentages) for the unserved communities are projected to be 42 percent of households passed and for the underserved communities 12 percent of households passed. (The 12 percent comes from both new users and users that switch from other providers. Information is not yet available for how much overall community use has increased.)

As good stewards of the taxpayers' money, we must make loans that are likely to be repaid. One of the challenges in determining whether a proposed project has a reasonable chance of success is validating the market analysis of the proposed service territory and ensuring that sufficient resources are available to cover operating expenses throughout the construction period until such a time that cash flow from operations become sufficient.

The loan application process that we have developed ensures that the applicant addresses these areas and that appropriate resources are available for maintaining a viable operation.

The broadband program authorized by the Farm Bill is in the third year of loans. Rural Development is looking at both the process and the structure of the broadband program. With this review of all aspects of the broadband program, we will make the changes we can and may suggest others to make this program more user friendly while protecting the taxpayer investment in broadband deployment.

In addition, USDA Rural Development requires any infrastructure built under the traditional telecommunications program to be broadband capable. This requirement has been in place since the mid 1990s to ensure quality service to rural citizens. USDA's goal is to provide the best quality service possible at a reasonable price for rural citizens.

Native American Tribal Lands

Over a third of the Community Connect Broadband Grants made by USDA Rural Development—27 out of 75—have gone to tribal entities. As one example, the Havasupai—down in the bottom of the Grand Canyon—is the last community in the United States to get mail by mule. Last year, USDA presented a check for $1.3 million to install wireless broadband Internet service. At the other end of the country, in Hughes, Alaska, USDA did the same for a native village of 78 people.

Projects like this open the door to economic development. In Hughes, for example, the tribe is going to use its website to facilitate the sale of arts and crafts as well as value-added seafood products. Residents will be able to earn income by providing data processing services. Videoconferencing will enhance educational and health care options.

The Pew Report that was released the first part of 2006, reports some different trends than we have seen in previous years. In the past, we have seen figures that indicated Internet usage was tied to income, education, and age.

The numbers we are seeing in this report indicate that availability is the number one factor affecting Internet usage. If broadband service is available, rural citizens and businesses seem to have as high a usage rate as any urban area.

There are some other issues. On average, it costs three times more to provide service to rural customers, than to customers located in urban areas. Availability and affordability cannot be separated. Competition improves affordability, and often, the quality of service. Lack of density and the remote nature of many communities add problems not found in urban areas. Problems such as dealing with environmental challenges or providing wireless service through mountainous areas, all add to the cost of deployment.

This is a dynamic industry. You can listen to the news or look at the newspaper each day and read of new inventions and new innovations. But broadband is not an end in its self. It is a tool to be used. It helps to bridge barriers of time and distance that rural America has faced through the years.

We are witnessing the changes. One village or town . . . one business . . . one family at a time, Rural America is transforming.

It won't happen overnight—but if we do our jobs right, I am convinced that smaller cities, small towns, and rural areas, including Tribal Lands, have a very bright future ahead.

STATEMENT OF HON. MARK PRYOR, U.S. SENATOR FROM ARKANSAS

The CHAIRMAN. A mike? I didn't know I needed a mike, but—sorry.

[Laughter.]

Senator PRYOR. Mr. Chairman, I'll just submit my statement for the record.

Thank you.

[The prepared statement of Senator Pryor follows:]

PREPARED STATEMENT OF HON. MARK PRYOR, U.S. SENATOR FROM ARKANSAS

I believe that government investment and the Universal Service Fund is working to enable rural America to play a vital role in the Nation's economy. However, much work remains to be done. In my view, support for a national, affordable, broadband build out is much like support for our Nation's highway system—the payoffs are not always immediate, equal or even transparent but inclusion for all Americans is essential.

In rural Arkansas, and much of rural America in general, the challenges for a meaningful national broadband deployment won't be easy. It will take more investment and a special understanding of the population's limitation. In addition to having a network available, many rural Arkansans who want and need to participate in the so-called communications revolution—including broadband—are older and financially restrained. It is difficult for many to afford computers or the monthly Internet expense. These are challenges that I hope that we can address along with deployment.

The future is clear to me—rural American must have broadband to create jobs and to stimulate their economies. I look forward to working with the Committee on these important issues.

The CHAIRMAN. Thank you very much.

Well, I do hope that Senators will keep their questions short, so we can get this.

I have one that I'd like to ask you. We still have 150 villages in Alaska that don't have rapid communication dial-up. And you're mentioning loans. Every time I hear that, in India, they're answering the phones for Hilton and Marriott and everyone else, they can't borrow money, because they don't have any economy to pay it back. When are you going to look at grants for some of our rural areas, rather than loans?

Mr. DORR. We have had the Community Grant Program. It's approximated about $25 million a year. And we have consistently made those grants. I believe that, over the last 3 or 4 years, in excess of a third of those grants have gone to tribal communities throughout the country, a large number in Alaska. I realize that there is substantial need, but, as you know, resources are tight.

The CHAIRMAN. Yes, every time I add money, I'm accused of adding pork. As a matter of fact, one Senator told me it was Eskimo ice cream. But, as a matter of fact, we can't get that money without add-ons. We can't get that money without earmarks. And now, I read, the President wants the line-item veto. If I put the money in, he will veto it anyway. How are we ever going to get the 21st century into Alaska unless you make some grants up there?

Mr. DORR. Well, sir, it's a good question, and we'll look into it and see what it takes, and see what the existing applications for grants are, and what we're short, and we'll get back to you on that.

The CHAIRMAN. Well, give me an answer within about 30 days, and clear it with the OMB, and we'll put it in the appropriations bill, with your approval, I hope, this year.

Senator Burns?

Senator BURNS. Well, Secretary Dorr, good to see you again. As we were on a show last night, with Orion Samuelson, and it was rather enlightening. I just told the Committee, before you got here, and those attending this hearing this morning, after we went through all the things in economic development in rural areas, it come down to the fact that this particular item is probably the cornerstone, if they're going to experience any growth at all in rural areas.

I have no questions for you, other than the fact that I would have to associate myself with the Chairman this morning—we just need somebody down there dedicated to the idea. Because if we make up our mind to do it, we can do it. But you need some people that are highly dedicated, working with incumbents and new entrants into rural areas, both wireless and wired. I can't see the wired end of it; but the wireless, I can. And the technology we have today has dedicated a way to do it.

I still think the best vehicle is through Universal Service. I really believe that that's the area where we really need it. We don't only need it as a commercial application. Secretary Dorr, you were in Plains, Montana. That little critical-access hospital depends on their interact capabilities with another medical corridor. And so, it's just absolutely important.

And I think if we can make up our mind, we've done some things in the energy bill that will put agriculture into the energy business,

along with food and fiber. We did that, also, in the 2002 farm bill. Now we've got the energy bill positioned where it ought to be. There's sort of a method to our madness here. And then, when we rewrite the farm bill next year, we will have these two items that will have very, very high visibility, as far as reenergizing rural America.

And so, I appreciate your work in that respect. And I know what you run into. You run into the same thing we run into, and that's called bureaucracy and motivating people. And fear is usually the best motivator, and the great fear is that if they don't get it done, we're going to fire them.

[Laughter.]

Senator BURNS. That usually gets their attention right away. And that's what we've got to do in this case.

So, thank you for coming. I appreciate your testimony this morning. And I think we know where we want to go. And now we've got to work together and make sure we've got a roadmap to get there as quickly as we possibly can.

Thank you very much.

The CHAIRMAN. Senator Nelson?

Senator BEN NELSON. In many areas of rural Nebraska, including some tribal areas in Nebraska, wireless coverage lags that experienced in the urban areas. Wireless coverage is particularly important to people living in rural areas. In addition, we're hoping that wireless will be an economical way to get broadband out to those places where it's not currently available.

So, my questions are: How can we encourage better wireless coverage, and how can we encourage deployment of wireless broadband?

Mr. DORR. Well, this is, obviously, a complex and complicated issue. That has come up frequently in travels that I've had around the country. I usually broach the issue by, first of all, asking everyone in the room to, "Raise your hand if you've had the same cell phone longer than 3 years." And about 10 percent of them do. And then I ask them to raise their hand if they've had the same cell service provider longer than 3 years. And, again, you get, frequently, no more than 10 percent who do, as well.

The difficulty with deploying these broadband loans in a way in which collateral has something to collateralize them with is exemplified by that observation.

When we are making loans into competitive environments, frequently what we're finding is that our traditional telecom infrastructure programs to independent and cooperative telephone companies in rural America have done a very good job over the last several years of deploying broadband and wireless connectivity access. It's the medium-sized communities where there are stronger, more aggressive competitors, where that frequently is less likely to be the case.

Mr. Andrew is pulling his team together in the process of reevaluating all of the guidance that they're using to make these loans and grants available. And I have a great deal of confidence that they're going to be successful over the next couple of months in reevaluating how better to do this.

Senator BEN NELSON. Well, you wouldn't be suggesting, I would imagine, that competition makes it more difficult, if people are changing their service provider or they're changing their equipment. I would assume that's because competition is working. But would that be true in the rural areas, where there's less competition?

Mr. DORR. I don't think it's an issue of competition so much as an issue of technology. The technology is evolving so rapidly that when you try to make a loan and collateralize it with an existing level of technology, frequently it makes it more difficult than one would anticipate.

So, we have no problem with competition, but it is trying to get your arms around the technology in the environment with a market share that does make it more difficult to comprehend how you make a loan that is well collateralized and that has an assurance of being successful.

I think it's interesting that, over the last 3 years, we've actually made $850 million, or thereabouts, of broadband loans through the program. And we think most of them are pretty solid loans, although time will tell.

Senator BEN NELSON. Well, it sort of goes to what the Chairman was saying earlier about, in some cases, loans may be less advisable than outright grants if the objective is to still get the modernization and availability of that service to certain areas, where loans don't necessarily work as well.

Mr. DORR. I think that's something that time will tell, quite honestly. It's not like plumbing, electricity, and rural water being put into an environment where there was absolutely none there in the first place. Now you do have in many cases, telephony providers and others, and they're all involved in this, one way or the other. The question is, what level of bandwidth access can they provide?

Interestingly enough, the Pew organization just recently put out a study that showed that over the last 4 years there's been a substantial gain in penetration of broadband access in rural America. So, I think this is something that we are, in fact, looking at to try to understand better how this occurred.

Senator BEN NELSON. Well, there are rural areas, and then there are rural areas. Nebraska is now categorized as an urban state, because of the population base being located in a certain quadrant. But the rest of the state is far less urban, and is—would totally qualify as rural. Would that Pew study really apply to the more—the least populated areas within the country?

Mr. DORR. I've read through it a couple of times, and I'm not exactly sure of the survey sample. But I do think they were fairly substantive rural samples that were drawn. So, yes, my sense is that it would pretty much typify rural, versus the kind of urban that you're talking about.

Senator BEN NELSON. If we turn to Universal Service, are there any improvements that you're looking at to increase the capability of Universal Service payments to support any kind of increase in technology or service availability?

Mr. DORR. There's nothing that I am aware of at this time. I don't know if Mr. Andrew is aware of anything.

Senator BEN NELSON. Would that be something we ought to be looking at, or are we going to continue to do what we've always done, so we always get what we've always got? Are we—is there a way to modernize the availability and the use of Universal Service funds?

Mr. DORR. Well, I believe that, historically, our telecom programs have depended on Universal Service funds to provide some of the debt service in these rural areas. The definition of "Universal Service," and how extensively it's used, I believe, occurs outside of our agency.

Senator BEN NELSON. And then, finally—and this may be outside your area, as well—but do you have any suggestions for improvements that we might make to spectrum auctions? Or is that outside of your area, as well?

Mr. DORR. That is not something that we, at the utility programs, typically get involved with, no.

Senator BEN NELSON. OK. Well, I appreciate your answers. And thank you.

Thank you, Mr. Chairman.

The CHAIRMAN. Thank you.

Senator Pryor?

Senator PRYOR. Thank you, Mr. Chairman.

I just have a few questions. I'll try to be brief.

And, first, for Mr. Goldstein, at the GAO, I just have a question, a big-picture question about the accuracy of your data. And in your statement you said that—taking some of the data that you have, it provides an elementary view of where high-speed Internet service subscribers are located. Are you saying that you don't have very accurate data about rural America in broadband?

Mr. DORR. Well, no, I think we do have accurate data relative to where our loans are deployed. In fact, we do know where those are, yes.

Senator PRYOR. And, in terms of your loans, you know where that is, but you may not know where—what areas are getting broadband outside of your loan areas. Is that fair to say, or do you know?

Mr. DORR. No, I think there is an evolving understanding of where the underserved areas and the unserved areas are. It's been a bit of a trick to get our arms around it, but I think they're getting a better handle on that. I would defer to Mr. Andrew, if he has anything to add to that.

Mr. ANDREW. Senator, we've been looking at that very carefully, where we can get more accurate information that is current, because, as we said, this program is evolving daily. Every day, somebody comes in my office with a new technology, a new idea, a new approach to things. And one day it's one thing, and the next day it's changed completely. And we have considered doing some studies. But every time we consider that, we wonder how long the facts—the information would be factual.

For example, sir, one person has said to me that maybe we've already got broadband coverage in this country now, because we've got satellites. If a satellite can reach every corner of the country, then do we have coverage? And the answer to that is: maybe and

maybe not. We're studying that. We know that there are more satellites going up.

But every day, there's new information that comes in about people and about technology, and it's changing the face of everything we're doing.

Senator PRYOR. OK.

Mr. Dorr, let me ask you, if I can—I want to ask you about the Rural Utility Service that you've been talking about, and how it prioritizes its available funding. And the reason I ask is, in September 2005 there was a report from the IG there at the Department of Agriculture that criticized the RUS for failing to target funds to truly rural communities that currently lack available broadband service. And I'm just curious about how you respond to that, and how you set the priorities there.

Mr. DORR. We have a clear priority listing. And the first priority is the unserved areas. The second priority is the underserved areas. And then the third priority is everyone else who comes in within the statutory demographic descriptions.

Senator PRYOR. And you're following your own criteria?

Mr. DORR. Yes, we are.

Senator PRYOR. Do you know why the IG would be critical of RUS and say that you weren't targeting truly rural communities? Do you know?

Mr. DORR. I'm aware of the IG investigation report, yes.

Senator PRYOR. But do you know why they made that statement?

Mr. DORR. Well, originally, when the program was developed, there was a statutory description of the population that we could serve. That was, I believe, in the 2002 farm bill. That was changed again in 2004. And, as a result, that guidance was utilized in some of the loans that were involved. And due to, quite frankly, the lack of applications from these other areas, after an extensive outreach initiative that I think involved a minimum of four and upwards of maybe six or eight outreach efforts across the country, they were doing the best to provide those then-underserved areas.

It's interesting to note that in the unserved areas, we get about a 42 percent penetration. In the underserved areas, we get about a 12 percent penetration rate. So, there is a clear difference in how we address these.

Senator PRYOR. And the last question for you, Mr. Dorr, since you mentioned the Pew study, the Internet study, that came out, I guess, last month, if I'm not mistaken, I think what its conclusions are, that basically in rural America you have a lack of infrastructure, and you have lower incomes and an older population. So, my question for you, just for your thoughts, is, If we do invest in the infrastructure—"we," the Government, or somehow, through USF or whatever it may be—if we do invest in infrastructure, does that overcome the factors of age and income in rural America?

Mr. DORR. I think the study would suggest that in fact, economic implications relative to deployment of broadband seem to have been mitigated more by availability issues. I think those numbers indicated that, in the rural areas, there was penetration of about 62 percent, versus urban areas at 70 percent. Rural broadband high-speed access was 24 percent, versus urban at around 39 percent. So, I think it's availability, as much as anything.

Senator PRYOR. Mr. Chairman, thank you. That's all I have.

The CHAIRMAN. I don't want to embarrass you, but have you been to Alaska?

Mr. DORR. Yes, I have, sir.

The CHAIRMAN. Have you been out to the villages?

Mr. DORR. Yes, I have.

The CHAIRMAN. You know that under the current situation, schools, libraries, and health facilities have high-speed dial-up, and they have connections. But if you run in the local store, you don't have it. In their homes, they don't have it. They have a village of 200 people. Schools, libraries, and health facilities have it, during their working hours. It's there. Have you ever explored what it would cost to make it available to the homes in these areas?

Mr. DORR. I can't say that we have, no.

The CHAIRMAN. There's a base out there of people who are computer competent by the sixth grade. If they work in one of those three facilities that have regular communications, they're all right. The rest of them go to their homes and sit there and twiddle their thumbs and get television 4 hours a day. That's an employment force. It's a group of people that could do what they do in India or other places in the world. Because of communications, they've got enormous employment. I just don't understand our system, we won't look into the same thing. And this is the same thing in some of the reservations in the South 48. But it's just endemic to our area. Two hundred and forty villages all have schools, libraries, and health facilities hooked up, and that's it.

I think it's a failure in our system. I would urge you to give it some real consideration.

Anyone else have any other questions?

[No response.]

The CHAIRMAN. We do thank you very much, and I'm pleased that you did take the trouble to get here, despite that traffic. We thank you.

Mr. DORR. Thank you.

The CHAIRMAN. Our next panel is Mark Johnson, Commissioner of the Regulatory Commission of Alaska; Bill Squires, Senior Vice President, the Blackfoot Telephone Cooperative, in Missoula, Montana; Larry Sarjeant, Vice President for regulatory and legislative affairs of Qwest Communications; Craig Mundie, Senior Vice President, chief technical officer of advanced strategies and policy, at Microsoft; Joe Garcia, President of the National Congress of American Indians; Mark Goldstein, Director of physical infrastructure issues of the U.S. Government Accountability Office, the GAO; and Ray Baum.

Now, gentlemen, I think if you—we hope there's room for you all there.

[Pause.]

The CHAIRMAN. I hope you heard my statement. Your statements will be printed in the record in full. We welcome your comments. We tend to listen to each one of you along the line, and then we'll have questions from the Senators concerning your presentation.

We thank you all for taking the trouble to come be with us this morning. It's another one, I think, of the hearings that are very important for us as we get toward the markup of our bill, which we

hope will occur in the week just before Easter, and we'll take it to the floor the week after Easter, we hope. But, we'll see.

Mark, you're first. We appreciate your coming from Alaska, and hope you don't mind the comments I just made.

STATEMENT OF MARK K. JOHNSON, COMMISSIONER, REGULATORY COMMISSION OF ALASKA

Mr. JOHNSON. Thank you, Mr. Chairman and Members of the Committee, I appreciate the opportunity to come here today.

The CHAIRMAN. Pull those mikes right up to you. They're very distance sensitive.

Thank you.

Mr. JOHNSON. I'll do my best.

I need to start with a caveat that my comments here today are my opinions, only, and are not policy statements of the Regulatory Commission of Alaska, nor do I represent the Commission here today. That's just one of the limitations of being a regulatory commissioner.

Alaskans have historically faced enormous limitations in communicating with themselves and the Lower 48. While significant progress has been made in recent years, Congress needs to understand that a communications network in rural Alaska is still fundamentally different than that which exists elsewhere in the United States.

Most of western and northern Alaska receives services by way of geosynchronous satellites. And despite the best efforts of the companies that operate these systems, they have limitations, in a digital age. I think some of those have been highlighted earlier, surely in terms of cost and in terms of the ability to transmit data at high rates over those facilities.

Interexchange communications play a relatively more important role in the lives of an Alaskan. I think this is important for the committee to understand. This is due to the limited calling scope in many communities, especially rural communities. Interexchange services, be it for telephony or for data connectivity to the Internet, are a critical link for many Alaskans.

Alaskans strongly support Universal Service support for broadband. Rural Alaskans in particular, can significantly benefit from broadband access to educational, medical, and other information sources. And I have some experience with this. And certainly the telehealth programs that are operating in Alaska are improving lives, improving patient outcomes. And the educational programs have opened many windows for rural residents. And these programs need to be continued.

If Alaska is going to be a full participant in the evolving information economy, we must have a strong communications network, which provides services at rates which are reasonably comparable to rates paid elsewhere. Congress should not permit the establishment of a second-tier status for Alaskan users of communications service. And that's particularly true for rural areas of Alaska.

While today's hearing is focused on rural communications issues, you should know that urbanized areas in Alaska have also developed some of the most contested and dynamic competitive markets

in the United States. And as a regulatory commissioner, that has posed significant challenges for us.

I do have some observations for the Committee. First of all, I want to clarify, a little bit, what's in my written statement. Clearly, the Act has some problems and needs revisions. But, in my view, they do not require a top-to-bottom overhaul. Congress should make a number of key policy judgments and statutory changes to address those problems.

Second, I think that Congress needs to provide for stable Universal Service funding by clarifying that the obligation to contribute to the Fund should include some of the services now regulated under Title I. Both the legislation sponsored by Senator Burns and the legislation sponsored by Senator Smith contain approaches which could be useful in addressing this issue.

Third, Congress may want to refine the scope of Universal Service. And there are principles, in section 254, which define what Universal Service should address. But it may be useful, in the course of looking at those principles, to consider classifying providers or services to sharpen the focus of Universal Service programs. From the perspective of Alaska, Universal Service policies and programs which are too broadly defined may dilute and erode the Universal Service mission. Certainly, revenues which are not used efficiently are not in the best long-term interest of rural communities.

Finally, Congress should assign the joint boards of FCC commissioners and state regulatory commissioners responsibility to develop implementation plans.

In conclusion, I would urge Congress to start this process with a review of the principles contained in section 254. I believe that this examination will determine that the principles are sound, and, to the extent that changes are needed, they can be targeted to solve specific problems.

Connectivity and the deployment of advanced service for all Americans is the goal. Rural areas—in particular, rural areas of Alaska—should not be left out of this equation, and can benefit significantly from wise decisions by Congress. And I believe this result is in the national interest.

With that, I'd be pleased to entertain any questions the Committee may have.

[The prepared statement of Mr. Johnson follows:]

PREPARED STATEMENT OF MARK K. JOHNSON, COMMISSIONER, REGULATORY COMMISSION OF ALASKA

Chairman Stevens, Co-Chairman Inouye and Members of the Committee, thank you for the privilege to come before you today.

I am Mark K. Johnson, member of the Regulatory Commission of Alaska. I was appointed to the Regulatory Commission by Governor Frank Murkowski in March 2003. I am a member of the telecommunications committee of the National Association of Regulatory Utility Commissioners and a member of the Joint Federal State Board on Jurisdictional Separations.

At the outset, it must be said that my comments here are my opinions only, based on my experience as a regulatory commissioner and prior experience in the Alaska telecommunications industry. My comments are not policy statements of the Regulatory Commission of Alaska, nor do I represent the Commission here today.

While my professional experience with Alaska communications issues began in 1991 when I worked for the Municipality of Anchorage which at that time owned the Anchorage Telephone Utility, as someone born in Alaska, I have come to know

first hand the enormous limitations faced by Alaskans in communicating with themselves and the lower 48 states. At statehood in 1959 and during the 1960s the government run long distance communications system delivered minimal quality service at high prices. A telephone call to my grandparents in Oregon was, at best, a monthly occurrence and I could say little more than "hello." All Alaskans struggled for information and to fulfill the simple human desire to remain connected to family and friends and to do business. Many rural residents had no service at all.

Due largely to the leadership of Senator Stevens, the situation has improved over the last thirty years, but not to a degree which is satisfactory to many. Alaskans living in a number of rural communities have only now reached the point where they have basic connectivity to the communications systems taken for granted by many other Americans for the last fifty years. Following the policy commitment of Congress, innovative, resourceful and forward thinking Alaskan communications providers, have worked hard to bring about this basic level of service.

Despite this progress the communications network in rural Alaska is still fundamentally different than that which exists in other states.

While robust interexchange networks of fiber optic cables and microwave connections exist for long distance services and digital data in the lower forty eight, only a portion of Alaska is served in this manner. Most of western and northern Alaska receive communications services by way of geosynchronous satellites. This system operates reasonably well for basic phone service, albeit at higher costs, but it is fair to say that it is stretched to provide the level of connectivity, including advanced services and Internet access, enjoyed by many areas of the United States.

With this being said, it must be understood that interexchange communications plays a relatively more important role in the lives of Alaskans. This is due to the limited calling "scope" in many communities, especially rural communities. Except for the principal cities of Anchorage, Fairbanks and Juneau and other communities along the Alaska Railroad or "Railbelt," most Alaskans can call or connect to only a limited number of people within the local calling area. In many rural communities, the local calling area may be only one or two hundred other people. Interexchange services, be it for telephony or for data connectivity to the Internet, are a critical link for many Alaskans in maintaining contact with the rest of the world.

Broadband services, which have been made available to rural communities through the "E-rate" and telehealth programs have opened up dramatic new opportunities for rural Alaskans. In the case of telehealth, these new services are saving lives and improving medical outcomes. The delivery of educational services in rural school districts is now improving, with classroom teachers now being able to access resources from around the country and around the world. Alaska stands with Senator Stevens in his endorsement of Universal Service support for broadband.

If Alaska is going to be a full participant in the evolving "information" economy, we must have a strong communications network which provides services at rates which are reasonably comparable to rates paid by the citizens of other states. This vital principle is embodied in Section 254 (b)(3) of current law. Congress should not retreat from this commitment and should not enact policies which permit the establishment of a "second tier" status for Alaskan users of communications services.

While today's hearing is focused on rural communications issues, I would be remiss if I failed to note that in the wake of the 1996 Telecommunications Act, urbanized areas of Alaska have also developed some of the most contested and dynamic competitive markets in the United States. While the competitive provisions of the Act have served consumers in urbanized areas of Alaska well it has not been without burdens. Additionally, and in particular, our state regulatory commission has been required to make difficult choices when it comes to permitting competitive entry and in implementing the competitive provisions in *rural* markets.

If Congress undertakes amendment of these competitive provisions, it should do so only with extreme care. Given that my commission has only recently ruled on some of these matters, I must limit my comments in this area. I will suggest that it is in the best interest of everyone that if any amendments in this area are to occur they should focus upon providing additional clarity and definition to these provisions. Conversations with Commissioner Daryl Bassett of Arkansas have indicated that this is a general concern for many regulatory commissions with rural areas.

Observations and Principles for Consideration

Please consider the following observations and principles in undertaking any amendments to our communications laws:

1. The 1996 Act does not require a top-to-bottom overhaul.

Instead, Congress should make a limited number of key policy judgments and essential statutory changes to solve agreed-upon problems. A large-scale overhaul of

the Act will result in significant uncertainty for the communications industry and will impair rather than enable the increased deployment of advanced services.

2. Congress should expressly provide for a stable base for Universal Service by clarifying that the obligation to contribute to the fund should include some services now regulated under Title I.

This action would eliminate the uncertainty that has developed regarding the regulatory treatment of new services. Confidence regarding the future of Universal Service programs and the economic sustainability of the existing telephony network needs to be restored for rural areas. The present uncertainty also inhibits investment in new services.

Both the legislation sponsored by Senator Burns and the legislation sponsored by Senator Smith contain approaches which could be useful in addressing this issue. Both bills would permit the FCC to craft the best approach to establishing a stable source of revenue for Universal Service. These bills do not endorse a specific method for funding Universal Service but allow the FCC to consider a variety of contribution sources. It may also be appropriate to provide that there should be a relationship between the contribution level of particular services and the benefits that may be received by those services.

3. Congress may want to consider refinements to the scope of Universal Service. This may be fundamentally a political process.

Currently, Section 254(c)(1) of the Act sets out these principles and a process for updating the definition of Universal Service.

As a state regulatory commissioner, one of the most useful tools in carrying out my responsibility under state law is the ability to make reasonable classifications of utility service providers and the services themselves. Congress may find it useful to, either directly or indirectly through the FCC, utilize this tool to sharpen the focus of Universal Service programs.

From the perspective of Alaska, Universal Service policies and programs which are too broadly defined may dilute and erode the Universal Service mission. As noted, that mission is very important to much of Alaska. Similarly, Universal Service revenues which are not used efficiently through the various programs are not in the best interests of rural communities or the underprivileged.

4. Congress should assign to joint boards of FCC commissioners and State regulatory commissioners responsibility to develop implementation plans in key areas. The expertise and the core competencies of state commissions should be recognized in administering communications policies.

The first of these boards would be charged with establishing reasonable rules and standards which (a) protect consumers and (b) minimize the compliance burdens on communications providers. It is my understanding that NARUC President Diane Munns of Iowa is developing a proposal along these lines.

The second board is the existing panel on Universal Service. This board would likely have new responsibilities following changes to the law.

In making these assignments, Congress should mandate the use of the joint board process to ensure roles for both the Federal and State commissions and to streamline the administrative process for these boards.

In conclusion, I would urge Congress to start this process with a review of the principles contained in Section 254. I believe that this review will determine that the principles are sound and, to the extent that changes are needed, that they can be targeted to solve specific problems. Connectivity and the deployment of advanced services for all Americans is the goal. Rural areas, and particularly rural areas of Alaska, should not be left out of this equation and can benefit significantly from wise decisions by Congress. This result is in the national interest.

I would be pleased to answer any questions the Committee may have.

The CHAIRMAN. Thank you very much.

Our next witness is Bill Squires.

STATEMENT OF WILLIAM SQUIRES, SENIOR VICE PRESIDENT/ GENERAL COUNSEL, BLACKFOOT TELECOMMUNICATIONS GROUP

Mr. SQUIRES. Thank you very much, Mr. Chairman, Members of the Committee.

My name is Bill Squires. I'm the Senior Vice President and General Counsel for Blackfoot Telecommunications Group, in Missoula,

Montana. It's certainly an honor to appear before you today. I very much appreciate this opportunity.

Montana has a long history of having a strong voice in the development of rural telecommunications policy. We're very thankful for these efforts from our own Senator Burns and from the Chairman of this Committee. And, indeed, through all the members of the committee, we've ensured that the voice of rural residents and people in rural Montana has not been lost in this policy debate.

Mr. Chairman, I would like to focus my comments today on what makes rural telecommunications different, what makes it unique, the unique challenges that we face in Montana, and, indeed, that your service providers in Alaska face, particularly on intercarrier compensation issues.

As part of the implementation of the 1996 Act, the FCC created what became known as the Rural Task Force, made up of representatives of all aspects of our industry, as well as consumer advocates and regulators. The Rural Task Force, in January of 2000, documented the unique challenges faced by rural carriers. Such unique challenges are, certainly, tackling rough terrain. Western Montana has its share of that, as does Alaska. Securing investment dollars is a challenge, and lacking the benefits of scope and scale, certainly add greatly to our challenges and our costs. Those challenges remain today.

Blackfoot serves over 6,500 square miles in western Montana, a place we like to call "the last best place." Our service area is approximately five times the size of the State of Rhode Island, but has only 29,000 people in residence in that 6,500 square miles. So, certainly the vast distances, combined with the lack of residents and the lack of scope and scale, add to the unique challenges that we face in serving rural Montana.

Economic development is key. And it was mentioned by the Chair this morning. Economic development, to us, is helping support some rural senior-citizen centers or some rural health clinics. We have no Fortune 500 campuses in Trout Creek, Montana, a population of 261. We certainly would welcome them.

But being rural does not mean that we don't have advanced services. Blackfoot is proud to have broadband available to 97 percent of our subscribers. And that's done, in part, through the various cost recovery systems that are available. But we're taking a long-term view of that. We're lowering our costs by rolling out a more efficient network system, a soft-switched system, complete Ethernet backbone system, that allows us to provide those broadband services at greatly reduced cost. Indeed, our Universal Service funding is going to be reduced by approximately one-half million dollars this year because of the efficiencies that we're trying to build into our services and maintaining costs at a reasonable level.

Cost recovery through intercarrier compensation is still a primary component of that cost recovery. As Congress and regulators develop intercarrier compensation policy, please remember, the cost of allowing other carriers to use our networks is not zero. Reasonable cost recovery must be made available to rural carriers.

There is a consensus developing around unified carrier compensation, and I believe you'll hear more about that this morning.

If necessary, I believe that Congress should make clear the FCC's authority to adopt and implement a unified rate scheme.

Blackfoot's ready to shoulder its share of the burden in resolving these issues. We have undertaken local rate rebalancing as part of a company-wide expanded area of service, or EAS, deployment. We recognize that our local customers have to shoulder some of the burden, but, also, the carriers that use our network have to shoulder some of that burden.

If I could impress upon the Committee one thing today, it is that rural is different. We do face unique challenges. We face unique responsibilities, as well, to our customers, our consumers, our member-owners, to allow them to engage in the world economy without migrating out of our area. We very much are proud of the services we provide. We're proud of the residents that live in western Montana. We want to make sure they have the vehicles available to stay there.

Thank you, again, Mr. Chairman, for the opportunity to appear here today. I'd be happy to address any questions you may have.

[The prepared statement of Mr. Squires follows:]

PREPARED STATEMENT OF WILLIAM SQUIRES, SENIOR VICE PRESIDENT/GENERAL COUNSEL, BLACKFOOT TELECOMMUNICATIONS GROUP

Executive Summary

Ten years after passage of the Telecommunications Act of 1996, the "rural difference" continues. The national policy dictating the availability of quality communications services at just, reasonable, and affordable rates in all regions of the Nation remains as strong today as ten years ago. Any reform of Universal Service and intercarrier compensation programs must acknowledge that service in rural areas is different. It is more expensive due to extreme geographical conditions, and rural service providers lack the economies of scale enjoyed by urban providers.

Intercarrier compensation is an integral part of cost recovery for rural providers. While past public policy may have dictated that some of these rates were set above cost as an offset for local rates, the fact remains that the cost of providing access to rural networks is not zero. Therefore, any notion of a "bill and keep" intercarrier compensation regime should be dismissed. Rural providers should also be encouraged to explore, and implement where viable, expanded local calling areas or other innovative programs to reduce reliance on intercarrier compensation. State and Federal regulation should allow local carriers such flexibility without undue delay. Finally, Congress and regulators must avoid the urge to give voice over Internet protocol (VoIP) carriers a free ride on rural networks. In the end, IP is simply another stage of evolution in the communications network, and still requires that rural carriers have lines to the ultimate end-user. Thus, there is a cost associated with VoIP providers' use of rural networks.

Introduction

Good morning Mr. Chairman, Co-Chairman Inouye, and Members of the Committee. My name is Bill Squires, and I am the Sr. Vice President and General Counsel for the Blackfoot Telecommunications Group located in Missoula, Montana. It is an honor to testify before the Committee this morning on Rural Telecommunications. I would also like to thank Montana's own Senator Conrad Burns for his work in the Senate over the years to ensure that Montanan's have a voice on all technology issues. With the support and dedication of the Chair and Co-Chair, and the entire Committee, we are able to preserve the quality and affordability of telecommunications services for rural Americans.

Blackfoot is both an incumbent rural telephone cooperative, providing service to approximately 17,000 access lines in Western Montana since 1954, as well as a competitive local exchange carrier providing services to the Missoula market, a town of about 60,000 people.

The scope of this hearing is very broad. As such, I would like to focus my testimony on a few key issues and policies impacting the rural telecommunications industry, particularly in the intercarrier compensation arena. However, by their very nature many of these issues are intertwined.

The Rural Difference Continues

Ten years ago Congress passed the Telecommunications Act of 1996 and many members of this Committee have first-hand knowledge of the hard work and deliberation that went into that landmark legislation. Interwoven throughout the 1996 Act, and indeed the Communications Act of 1934, is the explicit recognition that those providing communications services to rural areas of our Nation face unique challenges. In fact, these principles were made clear by Congress in section 254 of the 1996 Act.

As part of the implementation of the 1996 Act, the Federal Communications Commission (FCC), through a recommendation from the Federal-State Joint Board, called for the creation of the Rural Task Force (RTF), whose objective was to help identify issues that were unique to rural carriers.[1] The RTF was made up of representatives from every aspect of our industry—from large international carriers, to cellular companies, to regulators, to consumer advocates, to rural companies such as Blackfoot.

In January 2000 the RTF released a white paper documenting the "rural difference" in telecommunications, and the unique challenges that rural carriers face, such as providing service in remote areas, securing investment dollars and lacking the benefits of scale.[2] Since that white paper's release, not a lot has changed. Today these differences play an important role in developing intercarrier compensation policy, as those polices are, at least in part, dictated by network architecture in rural areas.

Blackfoot serves over 6,500 square miles of remote Western Montana. We like to believe it is the Last Best Place, but placing fiber and other facilities in the last, best place is not an easy chore. Our service area encompasses a land mass approximately five times the size of Rhode Island, but has a population of only 29,000, or a density of roughly 4 people per square mile. The average population density of non-rural carries is approximately 105 subscribers per square mile.[3] Rural carriers such as Blackfoot incur relatively high loop costs as a result of our lack of economies of scale and density. Additionally, the costs associated with getting personnel and equipment to remote areas is high. And, of course, we do all of this to service the single line residences, and the occasional two-line business. There are no Fortune 500 corporate campuses in Trout Creek, Montana, with a population of 261. Economic development in rural Montana means helping establish a small meeting center for the area senior citizens, or helping build a local medical clinic so folks do not have to drive several hours to the nearest hospital. We have proudly done these types of projects with the help of the Department of Agriculture's Rural Utilities Services (RUS) economic development loans.

Being rural, however, does not mean we lack innovation. And, it does not mean we are not aggressively deploying advanced services or engaging in progressive planning. Broadband service is available to 97 percent of our rural customers. At Blackfoot we are not proponents of the "highest cost" option for such deployment. In fact, we are taking a very long-term view of network evolution, which we believe will lead to greater efficiencies, lower costs, and therefore less pressure on subsidized intercarrier compensation and Universal Service. At Blackfoot, we have installed a new softswitch, and are in the process of establishing a 100 percent Ethernet backbone network that will allow us to push advanced services over greater distances at lower costs.

As a result of this aggressive innovation, our reliance on Federal Universal Service funding is decreasing, and in fact is projected to go down by over $500,000 this year. However, it will not, and indeed should not, ever completely go away. Similarly, our legitimate right to charge for the use of our networks through intercarrier compensation will not go away either. Rural is different.

Rural Intercarrier Compensation Issues

Cost Recovery is Paramount

The rural industry should, and must in my opinion, concede that in many instances current access rates still reflect implicit subsidies designed by regulators to keep local rates low. However, the fact remains that the true costs are not zero! Rural networks like ours have enormous transport costs—it may be 35 miles between our end office and the customer. And our costs to build those transport and

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[1] *See Federal-State Joint Board on Universal Service,* Report and Order, CC Docket No. 96–45, FCC 97–157, 12 FCC Rec. 8776, ¶ 253 (1997).

[2] The RTF's "The Rural Difference" White Paper is available at: *http://utilityregulation.com/content/reports/WP2.pdf.*

[3] *Ibid.* at pp. 7–14.

loop facilities are high, as well. While our urban counterparts lament the need to tear up paved city streets to lay new infrastructure, Blackfoot and other rural companies are trudging across mountain tops or trenching in an area that never has—nor likely ever will—have a road built to access it.

Establishing a bill and keep access regime does not eliminate the subsidies currently built into the system, it merely shifts the subsidies. With bill and keep, it is the carriers using rural networks for free that become subsidized. This is an important point. Today, we use intercarrier compensation to recover our costs. A shift to bill and keep removes our ability to recover our costs, and allows those who did not pay for the networks to use them for free. Clearly that cannot be Congress' intent.

The National Association of Regulatory Utility Commissioners (NARUC) has created, with the FCC's support, a collaborative forum to develop workable solutions to intercarrier compensation issues. The forum is making progress, and should be urged to quickly reach a consensus solution. This Committee should allow that process to unfold. Any solution must include unified interstate, intrastate, and local carrier compensation rates recognizing urban and rural cost differences. If necessary, Congress should expressly give the FCC authority to adopt this unified rate scheme.

Expanded Local Calling

Like many of our rural local exchange company brethren, Blackfoot for years has experienced precipitous drops in intrastate carrier access minutes due, presumably, to wireless substitution. Last year Blackfoot embarked on an aggressive, albeit somewhat controversial and painful, Expanded Area Service, or EAS, plan. The intent of implementing EAS was to give us more certainty in recovering our costs. As part of that plan, we worked with Qwest, CenturyTel and some other neighboring ILECs and combined 21 of our exchanges into one local calling area. So now, a call from Thompson Falls to Missoula—a distance of more than 100 miles—is a local call. Sure our customers now pay a little more for local service, but their local calling scope is much larger, reducing the amounts they would be paying if those calls were toll calls.

While implementing EAS was a big step towards Blackfoot gaining certainty with regards to cost recovery for intrastate services, some problems still exist—specifically, we are seeing arbitrage. For example, in the year since we have had EAS deployed, we have seen a substantive drop in our interstate switched access minutes as toll carriers "readjusted" their percent interstate usage factors, taking advantage of our new EAS region. Ultimately, the point I would like to make is as long as there are different termination rates available, there are always going to be players finding ways to game the system. Establishment of a unified intercarrier compensation rate should address and resolve this issue.

VoIP Intercarrier Compensation

Like most other network providers, we believe that those using our network should pay for their use. Companies should not get a free ride simply because of the transportation method they use. SONET traffic (traditional long distance transport) is like a pick-up truck riding the highway (our network) that we built. IP traffic is like a car riding the exact same network. Why should one have to pay and the other be exempt?

The issue becomes identifying the types of traffic and rating them accordingly. But again, a difference in rates will set-up arbitrage opportunities. We appreciate the work NARUC has done in spear-heading an industry-wide effort to develop a plan to move toward a unified rate. We are hopeful that the final version of that plan will set-up a rate scheme that will eliminate arbitrage opportunities and give rural carriers like us the ability to fully recover the costs of providing quality services to rural America.

Conclusion

If I could make one point today that remained foremost in the Committee members' mind, it would be that rural really is different. Every day our trucks roll deep into the Last, Best Place known as Western Montana, and our employees help rural Montana connect to, and compete in, the world economy. It is hard work for our women and men bringing service to Trout Creek, and Alta and Helmville—and they do it as well or better than any of the large national carriers. I am proud of them.

For over seventy years it has been the policy of this Nation to ensure that consumers in all regions have access to telecommunications and information services, including advanced services, that are reasonably comparable, in quality and rates, to those available in urban areas. To do so, rural carries must be reasonably compensated for the use of their networks by other carriers. Blackfoot Telephone Cooperative, and the entire rural telecommunications industry, stand ready to work with

this Committee, Congress, the FCC, and all interested parties, to fashion a stable, predictable intercarrier compensation system which provides for innovation, competition and deployment of advanced services while allowing the fair recovery of the costs for such services.

On behalf of our 17,000 customers in Western Montana, thank you for the opportunity to appear before the Committee.

The CHAIRMAN. Well, thank you very much.

Our next witness is Mr. Larry Sarjeant, Vice President of Regulatory and Legislative Affairs, at Qwest Communications.

Mr. Sarjeant?

STATEMENT OF LAWRENCE E. SARJEANT, VICE PRESIDENT, FEDERAL LEGISLATIVE AND REGULATORY AFFAIRS, QWEST COMMUNICATIONS INTERNATIONAL, INC.

Mr. SARJEANT. Good morning, Mr. Chairman and Members of the Committee.

Qwest has a long history of serving rural communities throughout its local service areas, and its experience serving rural customers informs its views on rural telecommunications. I appreciate the opportunity to share Qwest's views with you today.

Qwest provides local service in 14 States across the Central, Mountain, and Pacific time zones. Washington and Oregon, east to Minnesota, from Montana south to Arizona and New Mexico, Qwest's local service area spans nearly 271,000 square miles. It has an average of 55 access lines per square mile.

When you consider that this includes metropolitan areas, such as Albuquerque, Phoenix, Tucson, Denver, Minneapolis/St. Paul, Portland, and Seattle, you realize that much of Qwest's local service area must also be rural.

Despite its substantial rural service area, Qwest is considered a "nonrural carrier." It is a classification that defies reality in much of Qwest's service area. Even as a non-rural carrier, Qwest receives a disproportionately low share of support from the non-rural carrier USF high-cost model mechanism.

Based on 2006 projections from the Universal Service Administrative Company, Qwest's region will receive annual high-cost-model support this year in only 4 of 14 states, Montana, Nebraska, South Dakota, and Wyoming, in an amount of just under $46 million. One non-Qwest state will, alone, receive just under $148 million in support from this fund, more than three times the amount received by all 14 Qwest states.

I'd like to acknowledge the efforts of Senator Gordon Smith from this Committee to rectify this inequity by introducing S. 284, the Rural Universal Service Equity Act of 2005 during this Congress. But S. 284—and it's important to appreciate this—will not increase the size of the non-rural high-cost model mechanism. It would simply redistribute the available high-cost support in a more equitable manner among many more states.

This measure passed out of this Committee last Congress. It is critically important, and should be considered as a part of any future Universal Service reform legislation.

Now, this Committee, based on its hearings last week, is well aware of the urgent need for Universal Service reform. The program has grown too large to be sustainable. Further, it unfairly dif-

ferentiates between large rural carriers, like Qwest, and small carriers serving virtually identical high-cost service areas, in determining the amount of high-cost support to be received. Additionally, the current contribution base is shrinking, and must be broadened just to sustain the Universal Service Fund at its current level.

But as massive a challenge as Universal Service reform represents, intercarrier compensation reform threatens to make Universal Service reform even more daunting. Intercarrier compensation concerns the rules governing payments for exchange of traffic between and among interconnecting telecommunications carriers. There are multiple intercarrier compensation schemes that were developed at different times and under different circumstances. There are both interstate and intrastate access charge regimes that are regulated by the FCC and state public service commissions.

Among competing local exchange carriers, there are reciprocal compensation rules, which allow a local exchange carrier to be compensated by another local exchange carrier for the termination of local traffic between local customers.

For years, regulators and the courts have been kept busy deciding disputes concerning access charges and reciprocal compensation rates. It is necessary and appropriate for the FCC to bring rationality and harmony to our intercarrier compensation regime.

Why should Congress be concerned about intercarrier compensation reform? It should be concerned, because several intercarrier compensation reform proposals presented to the FCC would put more upward pressure on the size of the Universal Service Fund. Congress can forestall this possibility by capping the Universal Service Fund immediately. Past reforms of the interstate access charge rules by the FCC removed subsidies that historically existed in access rates. Such subsidies were not sustainable in a competitive telecommunications market. In doing so, the FCC shifted recovery of much of the foregone subsidy to the Universal Service Fund. Shifting the subsidies from interstate access to the Universal Service Fund was necessary and appropriate at that time, but it is neither necessary nor appropriate today.

Qwest has presented an intercarrier compensation reform proposal to the FCC that does not rely on increasing the overall size of the Universal Service Fund. It is already too large. It should not be raised as a part of intercarrier compensation reform. Rather, the fund should be capped to prevent increases in the future that would jeopardize its sustainability.

Thank you.

[The prepared statement of Mr. Sarjeant follows:]

PREPARED STATEMENT OF LAWRENCE E. SARJEANT, VICE PRESIDENT, FEDERAL LEGISLATIVE AND REGULATORY AFFAIRS, QWEST COMMUNICATIONS INTERNATIONAL, INC.

Good morning Mr. Chairman and Members of the Committee. My name is Lawrence Sarjeant, and I am Vice President for Federal Legislative and Regulatory Affairs for Qwest Communications International, Inc. (Qwest). Qwest and its predecessor companies have a long history of serving rural communities throughout its local service areas. I appreciate the opportunity to share its views with you at today's hearing on rural telecommunications issues.

Qwest provides local telephone service in fourteen states across the Central, Mountain and Pacific time zones. Its local service areas extend from Washington and Oregon east to Minnesota and Iowa, and from Montana south to Arizona and

New Mexico. Qwest's local service area spans 270,896 square miles. It provides approximately 14.7 million access lines. That translates into an average of 55 access lines per square mile. When you consider that included within this average are metropolitan areas such as: Albuquerque, NM; Phoenix, AZ; Tucson, AZ; Denver, CO; Minneapolis/St. Paul, MN; Portland, OR; and Seattle, WA, you realize that much of Qwest's local service area is either rural or very rural.

The Non-Rural Mechanism

Despite its substantial rural service area, under Federal Communications Commission rules, and for the purpose of determining Universal Service high cost support, Qwest is considered a *"non-rural"* carrier. It is a classification that defies reality in much of Qwest's service area and deprives Qwest's rural customers of their fair share of support from the Universal Service High Cost Fund. Even as a non-rural carrier, Qwest receives a disproportionately low share of support from the non-rural carrier High Cost Model mechanism. Based on 2006 projections from the Universal Services Administrative Company (USAC), Qwest's region will receive annual High Cost Model support this year in four of fourteen states—Montana, Nebraska, South Dakota and Wyoming—in the total amount of $45,814,833. One non-Qwest state will alone receive $147,901,239 in support from this fund, more than three times the amount received by all fourteen Qwest states.

I would be remiss if I did not acknowledge at this point the efforts of Senator Gordon Smith to rectify this inequity by introducing S. 284, the *Rural Universal Service Equity Act of 2005* during the 1st Session of this Congress. It should be noted, S. 284 would not increase the size of the non-rural High Cost Model mechanism; rather, it would simply redistribute the available high cost support in a more equitable manner among states with rural, high cost communities. This measure passed out of this Committee last Congress by a vote of 13 to 9, and Qwest believes that it is as necessary today as it was then. It should be considered as a part of any future Universal Service reform legislation.

Having heard from two panels of witnesses last week concerning Universal Service contribution and distribution mechanisms, the Committee is well aware of the urgent need for Universal Service reform. The program has grown too large to be sustainable. Further, it unfairly differentiates between large rural carriers like Qwest and small rural carriers serving virtually identical high cost service areas in determining the amount of high cost support for which a carrier is eligible. Finally, the current contribution base is shrinking and must be broadened just to sustain the Universal Service Fund at its current level. But, as massive a challenge as Universal Service reform presents, there is another challenging matter that threatens to make Universal Service reform even more daunting. That matter is inter-carrier compensation reform.

Inter-Carrier Compensation

Inter-carrier compensation concerns the rules governing compensation for the exchange of traffic between and among inter-connecting telecommunications carriers. It includes arrangements where carriers agree to exchange no compensation while accepting each other's traffic "bill and keep". Today, we have multiple inter-carrier compensation schemes that were developed at different times and under different circumstances. For example, arrangements concerning the exchange of Internet traffic by Internet backbone networks are largely market-based, commercial arrangements. Peering, or bill and keep, is common between Internet backbone networks for the exchange of Internet traffic. Where long distance services are involved, there are both interstate and intrastate access charge regimes that are regulated by the FCC and state public service commissions, respectively. Typically, long distance carriers pay local exchange carriers to deliver long distance calls to local customers. Among competing local exchange carriers, there are the reciprocal compensation rules, which allow a local exchange carrier to be compensated by another local exchange carrier for the termination of local traffic between local customers. Under the Telecommunications Act of 1996, reciprocal compensation may be in the form of an actual payment or it may be a bill and keep arrangement. Since the inception of access charges in the mid-1980s and reciprocal compensation in 1996, regulators and the courts have been kept busy deciding disputes challenging whether proposed access charges and reciprocal compensation rates were just and reasonable. Because inter-carrier compensation regimes vary by jurisdiction, arbitrage has also become a significant problem.

Why should Congress be concerned about inter-carrier compensation reform? You should be concerned because several inter-carrier compensation reform proposals presented to the FCC, if adopted, would put more upward pressure on the size of

the Universal Service Fund. Congress can forestall this possibility by capping the Universal Service Fund immediately.

Past reforms of the interstate access charge rules have been undertaken by the FCC in order to remove subsidies that historically existed in access rates. This was necessary in an increasingly competitive telecommunications market. Such subsidies were not sustainable in the long term. In removing subsidies from incumbent local exchange carrier access rates, the FCC shifted recovery of much of the forgone subsidy to the Universal Service Fund. Price cap carrier access reform resulted in the creation of the Interstate Access Support (IAS) mechanism ($725,271,912 for 2006 as estimated by USAC) and rate of return carrier access reform resulted in the creation of the Interstate Common Line Support (ICLS) mechanism ($1,260,864,360 for 2006 as estimated by USAC). Shifting these subsidies from interstate access to the Universal Service Fund back in 2000 and 2001 may have been both necessary and appropriate at the time. It is neither necessary nor appropriate now.

Qwest has presented an inter-carrier compensation reform proposal to the FCC that does not rely on increasing the amount of Universal Service support distributed by the Universal Service Fund. The size of the Fund is already considerably higher than is reasonable and should not be increased. Further, support should be distributed more fairly and the contribution base should be broadened. The total amount of the Fund should not be raised as part of an inter-carrier compensation reform plan. Rather, it should be capped to prevent increases in the future that would further jeopardize the Fund's sustainability. Expeditious Congressional action to cap the Fund will ensure that it will not become a casualty of inter-carrier compensation reform.

Thank you.

The CHAIRMAN. Thank you very much.

Our next witness is Craig Mundie, Senior Vice President of Advanced Strategies and Policy for Microsoft.

STATEMENT OF CRAIG MUNDIE, SENIOR VICE PRESIDENT, CHIEF TECHNICAL OFFICER, ADVANCED STRATEGIES AND POLICY, MICROSOFT CORPORATION

Mr. MUNDIE. Mr. Chairman, Members of the Committee, thank you for the opportunity to discuss policies aimed at including rural Americans in the broadband Internet age. These policies will have a significant impact both on rural communities and on our Nation's future economy, government, and society.

Some of you may recall that I testified on similar topics in October 2002. I'm glad to have a chance to appear before the Committee again.

As this Committee knows, the promise of broadband for rural America is great. Broadband can provide children in rural areas with the best educational tools. It can provide their parents with a path to compete in the global economy. It can provide grandparents easy access to advanced healthcare without always traveling great distances. It can enable young entrepreneurs to pursue their dreams without leaving home.

At Microsoft, we know the potential of rural entrepreneurship through direct experience. Five years ago, we acquired a business application company based in Fargo, North Dakota—Great Plains Software. Today, Microsoft continues to consider Fargo an important development center. It would not be one without broadband access.

This is the long-term potential of broadband. It enables innovation, and the use of innovations, wherever you are. But realizing this potential is not a sure thing. There is the very real risk that broadband will not be deployed in many parts of rural America, or it will not provide rural consumers the kind of access they need,

in light of the fact that, in rural America, the cost of delivering broadband increases dramatically on a per capita basis. Thus, our broadband policy must ensure not only that broadband is extended to rural Americans, but that it is done efficiently and effectively. Policies that come up short could shortchange our overall national welfare and our global competitiveness.

Let me offer four core policy objectives aimed at avoiding this gap.

First, unlicensed spectrum should be part of the solution. By pursuing serious spectrum reform, Congress can ensure that wireless broadband connections provide an alternative means to deliver broadband to all consumers, especially those in rural areas. Specifically, spectrum below 1 gigahertz should be allocated for unlicensed uses, since that spectrum has the best propagation characteristics.

We also support the adoption of new spectrum-sharing rules and increased use of "smart" radios to efficiently address the potential for interference among licensed and unlicensed operations below 1 gigahertz.

Mr. Chairman, you and Senators Allen, Kerry, Sununu, and Boxer, are to be commended for recently introducing bills that would put the FCC on this course by requiring the FCC to make so-called "white spaces" in the TV broadcast spectrum available for unlicensed use.

In addition to benefiting consumers, the deployment of broadband over unlicensed spectrum has great potential to enhance the communication abilities of first-responders and public-safety officials. For example, in the wake of Hurricane Katrina, Microsoft sent a team of engineers to Hancock County, Mississippi, to work with Federal and local teams on deploying wireless communications systems in a few cleared parking lots and atop remaining government buildings. While the effort was not without its obstacles, the experience demonstrated how rapid deployment of unlicensed devices can fill unexpected gaps in the Nation's communications infrastructure.

The second policy objective is the Universal Service Fund, which is still important and useful, but clearly needs reform. Any new funding mechanism must be stable, sustainable, easy to administer, and competitively neutral. We believe that a connections-based assessment has the greatest potential to satisfy these objectives. A fee would be imposed on every last-mile connection, whether wireline, cable, or wireless. That would reduce regulatory arbitrage, would be easy to administer, and would be competitively neutral.

Third, as I first raised with the Committee here in 2002, Congress should ensure that broadband networks do not interfere with consumer choice. This policy, which some refer to as "net neutrality," ensures that consumers, not network operators, decide what content and what services succeed or fail on the Internet in the future. Congress should, by statute, safeguard the ability of consumers and providers to offer and access content without interference, to use applications and services on the Internet, and to attach any nonharmful devices to the network.

Finally, we support providing greater incentives for broadband deployment through targeted deregulation. To this end, we recog-

nize that the current system of video franchising needs reform to streamline entry for new competitors and to rationalize regulation for all providers. Microsoft looks forward to working with the Committee to achieve these goals.

Thank you, again, for the opportunity to appear here today. I look forward to your questions.

[The prepared statement of Mr. Mundie follows:]

PREPARED STATEMENT OF CRAIG MUNDIE, SENIOR VICE PRESIDENT, CHIEF TECHNICAL OFFICER, ADVANCED STRATEGIES AND POLICY, MICROSOFT CORPORATION

Mr. Chairman, Senator Inouye, and Members of the Committee:

My name is Craig Mundie, and I am Chief Technical Officer of Advanced Strategies and Policy at Microsoft Corporation. I am pleased to appear before the Committee to discuss the critical issue of ensuring that Americans living in rural areas receive full access to—and, in turn, can readily benefit from—broadband capacity and the Internet-based offerings of the future.

Microsoft is both a significant bandwidth user and a leading provider of Internet-based products and services that use broadband connections. Our mission is to create new and innovative capabilities for consumers, for small and large businesses, for other technology providers and, of course, for government use. From our Windows Server System and developer tools, to our business and mobile solutions, to our entertainment oriented offerings—like WindowsMedia Center Edition, our IPTV platform and Xbox—we are in a great position to give rural businesses, consumers and governments the tools they need to get the most out of what broadband offers. That is why we strongly support the development of robust, reasonably priced broadband services for all consumers in all areas of the country. The emergence of broadband platforms utilizing the Internet Protocol (IP) technology can deliver finally the long-discussed convergence of traditional telecommunications offerings and the newer Internet-based services and products. The time is near when consumers will no longer see the Internet as a distinct medium (where they look for information "on the Internet" or make "Internet calls"), but rather they will simply communicate and receive content and services without even realizing it is being provided in an IP format or via the Internet.

As this Committee knows, however, while the promise of broadband is great, the reality has yet to meet the promise on a wide-scale basis. Clearly, broadband has not fully arrived for all Americans, and we cannot simply assume that the broadband of tomorrow will maximize the connectivity of all citizens. We cannot assume that the broadband of tomorrow will reach children in all areas of our country with the best educational tools, will provide their parents with a path to the world to compete, and will provide their grandparents with easy access to the best healthcare without always traveling great distances. All of these things are possible, but none is certain. It is imperative, therefore, that as this Committee considers how to modernize our laws so they reflect the technical and commercial realities of the Internet Age, we get our broadband policy right, for rural and urban areas alike. Policies that fall short could shortchange our national welfare and, equally important, our global competitiveness.

The Benefits That Broadband Can Offer Rural America.

Rural America in many ways exemplifies both the potential good that broadband can deliver and the risks inherent in failing to develop a sound broadband policy. Through the innovation of information technology companies, content providers, broadband providers and device manufacturers, digital services are increasingly available in a variety of forms, and the possibilities for connecting to those services in rich, unique, and more affordable ways are greater than ever before. Simply put, broadband can and has revolutionized how Americans do business, interact with government, learn and are entertained. With the right connections, distance can no longer be an obstacle to knowledge. Geography can no longer be an impediment to the latest medical research. The great plains no longer would isolate communities from larger economies. With affordable technology as the equalizer, a child in rural Alaska can have access to the same information as one in suburban Washington, D.C.; an entrepreneur in North Dakota can develop a business that competes with Silicon Valley; and a rancher living 200 miles from downtown Billings can access medical advice as readily as a banker living two miles from downtown Boston.

These sentiments are not merely aspirational. Indeed, as I am sure the Chairman knows, a recent study evaluating the Alaska Federal Health Care Access Network Telemedicine Project provided the following conclusion:

> Evaluation data demonstrated that telemedicine using the AFHCAN resources did increase rural and remote access to healthcare. It facilitated referrer-physician communication, enhanced patient education, improved quality of care for patients, and increased satisfaction of both providers and patients. The vast majority of providers indicated that the equipment was easy to use and made their work more fun. These are not [the] only factors that improved healthcare for patients, but also factors that should influence higher retention of healthcare personnel. [1]

The U.S. Department of Agriculture Distance Learning and Telemedicine program also provides a number of real world case studies of how broadband can deliver important educational and health benefits to Americans living in remote areas. [2] For example, under a U.S. Department of Agriculture grant, six isolated health clinics in the Redwood Coast area of California—which is in the far northwest quadrant of the state—will link to a hub site located in Eureka, California to provide specialty medical services. According to the USDA, the clinics served over 21,000 patients in 2003. Under another USDA grant, the Elko County School District in northeastern Nevada undertook a project to link the main town of Elko to four end-user sites for the purpose of extending additional Advanced Placement (AP) courses into rural schools. The project has the potential to reach approximately 1,475 students.

Likewise, information technology providers and non-governmental organizations have helped deliver the quality-of-life and educational benefits of high-speed Internet access to Native American tribes. In an example that strikes close to home, the Bill & Melinda Gates Foundation collaborated with Verizon and a development organization for Northwest tribes to deliver WiFi broadband service to a reservation in the Cascade Mountains. The delivery of this WiFi service provided the families on the reservation with a private network to share information about grant applications, health information and local news; enabled telecommuting to jobs in the Seattle area which increased the time tribal members spent with their families and in their community; and provided the tribal members with the opportunity to enhance their education through distance learning classes.

As each of these examples demonstrates, connecting individuals to each other and to innovative services and content in reliable, efficient and useful ways provides invaluable tools for self-improvement and can unleash a tide of economic and social benefits. This conclusion is borne out by economic data. A recent economic study concluded that "broadband access does enhance economic growth and performance." [3] Specifically, the study found that communities in which mass-market broadband was available "experienced more rapid growth in (1) employment, (2) the number of businesses overall, and (3) businesses in IT-intensive sectors." [4]

This data and the experience of the last decade also tells us something else that is very important about broadband and connectivity—namely, that the young entrepreneur living in Fargo, North Dakota with the dream for a business does not have to leave home to make it happen. That is a profound change from what rural America has seen over the past decades. Thus, a small enterprise software company—Great Plains Software—with an innovative leader named Doug Burgum, can make a home in Fargo and develop his good idea into a billion dollar company—one that I'm pleased to say Microsoft acquired five years ago. He showed that with today's technology you don't have to leave the farm community to make it big in the information economy. Other rural states from Maine to Montana have similar stories of high technology companies sprouting up. This is arguably the greatest long-term potential benefit of broadband—the ability to innovate, wherever you are, and to deliver your innovations to others, wherever they are.

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[1] Executive Summary, Evolution and Summative Evaluation of the Alaska Federal Health Care Access Network Telemedicine Project, at 8, available at *http://www.alaska.edu/health/downloads/Telemed/03.ExecSummary.pdf.*

[2] For information on recent DLT grant awards and past success stories, see *http://www.usda.gov/rus/telecom/dlt/dlt.htm.*

[3] William Lehr, Carlos A. Osorio, Sharon E. Gillett, and Marvin Sabu, Measuring Broadband's Economic Impact, Presented at the 33rd Research Conference on Communication, Information, and Internet Policy (TPRC), Sept. 23–25, 2005, available at *http://www.tprc.org/TPRC05/Sat1040Sess05.htm.*

[4] Id.

Policy Measures That Can Support Broadband Deployment and Use in Rural America.

As I noted, the experience of rural America also highlights the risks inherent in failing to develop a sound broadband policy. It does so because, quite simply, broadband deployment cannot be taken for granted. Further, just because broadband is deployed does not mean it will deliver on its full potential. These risks—that broadband will not be deployed or, if it is, it will not provide the necessary kind of access—tend to grow as the difficulty of delivering the "last mile" of broadband increases. And that certainly is the case in remote areas of the country. As a recent study concluded, there is a real lag in high-speed Internet penetration in rural households, and, as a consequence, Americans living in rural areas generally utilize the Internet less frequently than urban and suburban users.[5]

To close this gap, the broadband policy that we develop must ensure not only that broadband is extended to rural Americans, but that it is done efficiently and effectively. I would like to highlight four core policy objectives that Microsoft believes should serve as the basis for an effective broadband policy to benefit the nation—both rural and urban America.

1. Unlicensed Spectrum

First, traditional wireline technology (telco or cable) presents only a partial solution to the challenge of broadband deployment in rural areas. The cost of the "last mile" will still be high, and, as a result, citizens living in the most remote areas will still face the challenge of how to get broadband services. Often, the last mile can be much longer than a mile, or even in rural areas where homes are closer together, the population density may be too low to attract traditional providers. To help address this problem, the Committee should look to spectrum reform to ensure that wireless broadband connections can provide an alternative means to deliver broadband to all consumers, especially those in rural areas.

As I have testified previously to this Committee, unlicensed technologies can support the transmission of data at high speeds for a low cost. That value proposition—higher speeds with relatively cheap and fast deployment—is especially compelling in rural areas where distance is so frequently the enemy of network efficiencies and a major cost and delay driver for broadband deployment. With unlicensed spectrum and smart wireless rules, Internet access and other types of community communications can be provided in many areas at comparatively lower costs. Over the last few years, WiFi technology has proliferated in densely populated urban areas and in commercial settings, such as book stores and coffee shops, where there is a clear demand to provide consumers with more convenient wireless Internet access in places away from home and office. There is no technological or even economic reason, in my view, that someone sitting in a living room in a small town in the White Mountains should not have the same efficient and affordable access to broadband as someone sitting at a Starbucks in downtown Seattle.

What is needed to make this happen? In a word: access to spectrum and, specifically, access to spectrum below 1 GHz. The equipment exists today to deliver wireless broadband in coffee shops and hotels using unlicensed bands. And wireless Internet service providers (or WISPs) are attempting to use variants of that technology to bridge the last mile in rural communities. The problem is that the spectrum available today for unlicensed use does not propagate well over long distances. Signals can be obstructed by foliage and walls, and the physics of today's WiFi spectrum dictate that the signal fades over distance.

Designating spectrum below 1 GHz for unlicensed use will have many benefits. Deployment of unlicensed devices is fast; it's efficient. The technology empowers innovators and consumers. It also gets the FCC out of the job of picking technology or service provider favorites. Instead, it lets the market decide—or lets the community, or even individuals, do it for themselves. That means innovation is faster, and competition—not the Commission—pushes companies to innovate and deploy new services. Moreover, because unlicensed bands are open to anyone who buys a compliant device at a retail store and attaches it to the network, the capital investment comes when it is needed and is fueled by individuals and businesses, not by larger network operators. And because buying blocks of spectrum at auction is not required, the cost of entry for these services is lowered. Thus, the cost of providing these services is extremely low relative to the substantial benefits that can accrue as the result of broadband Internet access.

Congress and the FCC can do more to encourage alternative wireless broadband connections using unlicensed spectrum by allocating sufficient spectrum below 1

[5] Pew Internet and American Life Project, *Rural Broadband Internet Use,* at 2, available at *http://www.pewInternet.org/pdfs/PIP__Rural__Broadband.pdf.*

GHz. And we applaud members of this Committee, including the Chairman, who have introduced legislation that would have the FCC do just that. Spectrum below 1 GHz has excellent propagation characteristics. The same spectrum used to deliver high-quality TV and radio signals long distances to your home would do an excellent job delivering high-quality Internet services. The problem of propagation losses would be overcome.

We recognize that using spectrum below 1 GHz for this purpose raises concern among incumbents about the potential for interference. Therefore, in addition to making spectrum available, we also support the adoption of new spectrum-sharing rules to address that potential and the use of smarter radios to more efficiently use the spectrum.

Before proceeding to the next topic, I should emphasize that the last few months have also demonstrated how deployment of broadband over unlicensed spectrum can enhance public safety—especially in times of emergency. In the immediate aftermath of Hurricane Katrina, I sent a team of mine to Hancock County, Mississippi—which is where the eye of the hurricane hit. My team did what they could to help establish wireless networks in conjunction with students and faculty from the Navy's post-graduate school out of Monterrey, California. While the situation was chaotic, representatives from the school, other companies and my team were able to establish wireless connectivity between a handful of governmental facilities that had been left standing, as well as in the parking lots of aid-distribution centers. The sites were networked together, and from them, people were able to access the Internet and even make phone calls. The lesson from this experience could not be more clear. Not only does high-speed access over unlicensed spectrum have great potential to support a multiplicity of routine tasks, but it can serve as a critical resource in times of crisis.

2. Universal Service Funding Reform

Second, clearly the question of how to pay for broadband deployment in rural areas needs to be addressed. Microsoft recognizes the importance of the decades-old Universal Service funding policy to the ubiquitous telecommunications infrastructure that we enjoy today; but we also see the current funding mechanism as outdated and in need of reform. Any new funding mechanism must be stable, sustainable, easy to administer and competitively neutral. We believe that a connections-based assessment mechanism has the greatest potential to satisfy these objectives. In essence, this approach would authorize the FCC to assess a flat fee on each end-user "last mile" wireline or wireless connection. This approach is much easier to administer than a numbers approach, and it does not artificially tilt consumer decisions. It also is more sustainable than a revenues approach. We envision a connections-based approach working thus:

- The end-user would be assessed a USF fee on his or her bill, and the provider of the connection would collect and remit the fee.
- The FCC could tier the fee according to the size/capacity of the connection. For example, high bandwidth connections could be assessed a larger fee as compared to voice-grade connections.
- Technological and competitive neutrality would need to be maintained in the way that tiers were defined and assessed. For example, DSL and cable modem should generally have the same assessment when competing for the same consumer. The FCC also could exempt certain connections, such as for Lifeline consumers.
- The FCC then would calculate the amount of the per connection assessment by dividing the amount of USF support by the number of connection assessments.

There are a number of advantages to this approach. To start, it does not run the risk of arbitrage through bundling, in which bundled packages of services could either minimize contributions or distort the marketplace based on the level and amount of USF assessments. Rather, a connections-based approach is completely neutral. The only way to avoid the assessment is to forego any connection whatsoever, and if you do connect, the assessment will not vary depending on the type of connection. The assessments also will be competitively neutral between providers of connections on a similar capacity. Importantly, a connections-based assessment would be more stable and sustainable than an alternative predicated strictly on a methodology that applies to today's world but may be obsolete tomorrow (i.e., a numbers-based approach). Indeed, connections can be expected to grow as both the population and new sources of deployment grow. Finally, we believe that a connections-based approach offers significant administrative and transparency benefits. In particular, because the approach will centralize assessments into a single set of pro-

viders in contact with end users—in contrast to an approach that divides assessments among hundreds of providers operating over the same connection—it will reduce administrative costs and make the assessment easier for consumers to understand.

In terms of distribution, we also support a competitively neutral approach. And we believe that, here, Congress should not forget that spectrum policy also can play a role. To the extent more spectrum is made available for the creation of unlicensed, wireless broadband connections, costs for digging trenches and for stringing wires can be eliminated for the benefit of all types of providers.

3. Connectivity Principles or Net Neutrality

Third, it is imperative that consumers be able to access any Internet site and use any lawful application or device with a broadband Internet connection—just as they have been able to do in the narrowband world. This principle, which sometimes is referred to as "net neutrality" or the "Connectivity Principles," is really about letting consumers decide, and not network operators, what content and services succeed or fail on the Internet. Connectivity Principles are important as a policy matter—especially in rural areas—because they determine whether consumers drive decisions on innovation and technology, or whether one lets the network operators affect those decisions. We are pleased that the network operators are investing in technology and innovation, and we are proud partners with them in offering content and services to the public. We just think that other companies should continue to be able to offer Internet content and services as well.

I first raised this issue with the Committee in October 2002 and I identified four core principles that should be protected by Congress. These are the ability of consumers and providers (1) to offer and access content without interference; (2) to use applications and services on the Internet; (3) to attach any nonharmful personal devices to the network; and (4) to obtain clear information about their service. It is imperative that these principles be established by statute in such a way as to ensure that the consumer always has access at some reasonable price to a level of network performance sufficient to access the evolving services of this next generation Internet. Network operators should not be able to offer preferential use of the network to their own services or those of specific network services unless the consumer has the potential to buy the meaningful capacity for use with services, devices and applications of their choice.

The broader community feels very strongly about this issue. Recently, over 70 major Internet and technology companies, including Yahoo!, Google, eBay, Amazon.com, and Interactive Corp., have come together on net neutrality and are calling on Congress to ensure that the Internet remains a platform open for innovation and progress.

In the past, Congress ultimately has intervened in the business activities of the historical network providers to ensure that the consumers had choice and reasonable pricing over time and to further ensure that each network operator could not discriminate against particular connections or offerings that consumers desired. Congress should act now to ensure that such consumer protections carry forward gracefully to the converged network we call the Internet, which will quickly inherit the union of all the other networks' capabilities and services and also allow the creation of many new businesses and services that we cannot reasonably forecast. These hallmarks of consumer expectations have been, and remain, fundamental to the success of the Internet. These basic features defined consumer, private sector and governmental experiences on the Internet, and we agree with others in the industry that these principles should be carried forward to the Internet broadband future.

4. Targeted Deregulation

Fourth, we support providing greater incentives for broadband deployment through targeted deregulation. Like many others, we recognize that certain legacy requirements in the Communications Act and in the FCC's implementing regulations do not fully account for the architectural and commercial realities of today's telecommunications landscape. Thus, through the High Tech Broadband Coalition, we supported unbundling relief for the incumbent carriers. We likewise recognize that the current system of video franchising needs reform to streamline entry for new competitors and to rationalize regulation for all providers.

A Broad, and a Long, View.

Broadband has the power to transform society, and nowhere is that power greater than for rural communities. If you get the broadband policy right, I think ten years from now members of this Committee could look back and see that a comprehensive and visionary broadband policy may have had as great, or greater, an impact on re-

shaping and renewing rural America as a major farm bill did in years gone by. The right policy can create the opportunity for rural communities to be an easily-reachable stop on the Internet, and these communities in turn could feed network hubs in rural states. Such a network would deliver better and more efficient services and create opportunities for learning, public services, public safety, communication and innovation, which in turn can lead to a virtual cycle of economic and social growth within our rural communities. There is no reason that we cannot foster the development of more Great Plains Software companies, more innovative health and wellness solutions, and more Advanced Placement courses for students in small communities. Broadband technology means that rural Americans can reach, and be reached, by the rest of the country and the rest of the world without ever having to leave home.

Microsoft looks forward to working with the Committee to achieve these goals. Thank you again for the opportunity to appear before you today.

The CHAIRMAN. Thank you very much, Mr. Mundie.

Our next witness is Joe Garcia, President of the National Congress of American Indians.

STATEMENT OF JOE GARCIA, GOVERNOR, OHKAY OWINGEH; PRESIDENT, NATIONAL CONGRESS OF AMERICAN INDIANS (NCAI)

Mr. GARCIA. Good morning, Chairman Stevens and Members of the Committee.

My name is Joe Garcia. I am Governor of Ohkay Owingeh, formerly known as San Juan Pueblo, in the State of New Mexico, and I am the President of the National Congress of American Indians.

The National Congress of American Indians, NCAI, is the oldest and largest national American Indian and Alaska Native organization in the U.S. I sit before you today representing over 275 tribal governments and hundreds of thousands of American Indians and Alaska Native people.

On behalf of NCAI, thank you for the opportunity to testify before you today on an issue that is critical to the future of our communities.

Only 68 percent of the households on tribal lands have a telephone, compared to more than 95 percent, nationwide. Less than 10 percent have broadband access. Only eight of the more than 560 tribes have tribally owned and operated telephone companies, and there are only 35 tribal radio stations.

A strong telecommunications infrastructure is vital to every aspect of tribal governance and life. From economic development to public safety, education and healthcare, without this access, tribal nations simply will not be able to compete and fully prosper in the 21st century. Important decisions concerning telecommunication and broadcast policy are made here in Washington that impact the future of our nations and our people. And in the past these decisions have been made largely without our input.

The Communications Act of 1934 and Telecommunications Act of 1996 did not mention Indian tribes. This is one of the root causes why our lands lag far behind the rest of the Nation in virtually every measure of communications connectivity. We know that there is an opportunity before us to help all Indian Country take historic steps, and it is one we take very seriously.

As Congress looks to change the Nation's telecommunications laws to address new and changing technologies, tribal leaders have passed a resolution calling on Congress to expressly address the

communications needs and priorities of tribal nations in any rewrite of the Telecommunications Act of 1996. We have to have a seat at the table.

For the past 2 years, NCAI has been holding meetings around Indian Country, with the goal of identifying consensus policy recommendations that will help close the digital divide that persists for Indian communities. Attached to my written testimony are two resolutions passed by NCAI last fall that are the product of these meetings. These resolutions include a number of policy recommendations that I would like to mention briefly here. There are four.

Number one, the rights of tribal governments to assert regulatory jurisdiction over telecommunications activities on tribal lands is an effective means of protecting the public interest of Indian Country and providing universal access to telecommunications services. Some tribes already have successfully exercised regulatory authority in this area. Congress should acknowledge the authority of tribal governments to regulate telecommunications activity on tribal lands in any future legislation.

Two, universal access must be made a reality for tribal communities. This includes not only traditional wireline services, but also broadband. Closing the digital divide is critical for tribal governance—self governance, economic development, homeland security, education, and healthcare. The Universal Service Fund must be protected and strengthened.

Three, spectrum is an important natural resource that is critical for tribal communications services. In the past, Federal spectrum management policy has not acknowledged tribal sovereignty, self-determination, or the Federal trust and responsibility. As a result, very few tribes have been able to access licensed spectrum for public safety, telephony, community broadband, or broadcast media. Tribal access and options for spectrum ownership on tribal lands should be addressed.

Four, many tribes do not have the resources or information to be able to plan for the community's telecommunications future. The Native American Connectivity Act, S. 535, which was introduced by Senator Inouye and cosponsored by Senator Cantwell, would establish a flexible block grant funding mechanism for the development of telecom and information technology capacity in Indian Country. The Native American Connectivity Act is the type of flexibility solution that tribes need in order to be able to meet the telecommunications needs of their communities.

In conclusion, as Congress revamps the Nation's telecommunication policies, a tremendous opportunity exists to empower Alaska and Indian tribal governments. We strongly encourage Congress to consider how Indian tribes should be treated by the Federal telecommunications policies in order to remedy the exclusion of tribal communities from the information society.

The National Congress of American Indians and our member tribes stand ready to work with you to ensure that Federal telecommunications policy develops in a way that best serves all members of our society and is consistent with the unique status of Indian tribes in the Federal system.

Thank you very much.

[The prepared statement of Mr. Garcia follows:]

PREPARED STATEMENT OF JOE GARCIA, GOVERNOR, OHKAY OWINGEH; PRESIDENT, NATIONAL CONGRESS OF AMERICAN INDIANS (NCAI)

Good morning Chairman Stevens, Senator Inouye, and Members of the Committee. My name is Joe Garcia, and I am Governor of Ohkay Owingeh, formerly known as San Juan Pueblo, in the State of New Mexico, and President of the National Congress of American Indians (NCAI).

NCAI is the oldest and largest American Indian and Alaska Native organization in the United States. I sit before you today representing over 275 tribal governments and hundreds of thousands of Indian people. NCAI was founded in 1944 in response to termination and assimilation policies that the United States forced upon the tribal governments in contradiction of their treaty rights and status as sovereign governments. Today NCAI remains dedicated to protecting the rights of tribal governments to achieve self-determination and self-sufficiency.

On behalf of NCAI, thank you for giving me the opportunity to testify before you today on an issue that is critical to the future of our communities. I am here because only 68 percent of the households on tribal lands have a telephone compared to more than 95 percent nationwide, because of the more than 560 federally-recognized tribes, only 8 have tribally-owned and operated telephone companies, and there are only 35 tribal radio stations. Important decisions concerning telecommunications and broadcast policy are made here in Washington that impact the future of our nations and our peoples. As Congress looks to change telecommunications laws to address new and changing technologies, tribal leaders are becoming involved to an unprecedented extent. The Communications Act of 1934 and Telecommunications Act of 1996 left tribal roles, needs and abilities unaddressed. This is one of the root causes why our lands lag far behind the rest of the Nation in virtually every measure of communications connectivity. We know that there is an opportunity before us to help all of Indian Country take historic steps forward, and it is one we take very seriously.

A strong telecommunications infrastructure is vital to every aspect of tribal governance and life. It provides the foundation for successful economic development and serves as an invaluable tool for education and training of tribal members. It is a life-saving blessing for our elders and others who are now or will be able to receive medical care through telemedicine services. It enhances our ability to preserve our languages and cultures, and it is a critical component in our efforts to play our part in emergency response and homeland security preparedness. While much of the country is leaping ahead in the digital revolution, Indian communities continue to struggle with issues of basic access to telecommunications services. Without this access, tribal nations simply will not be able to compete and fully prosper in the 21st century.

The unacceptable state of telecommunications technologies and services in Indian Country has been well-documented in prior Congressional hearings, including a joint Indian Affairs and Commerce Committee Oversight hearing in 2003 and a hearing on the Native American Connectivity Act in 2004. I encourage you to review the records from these prior hearings for a more thorough background on the challenges facing our communities in this area.

I also encourage you to review the recently issued GAO report, which confirmed that basic telephone penetration in Indian Country still lags far behind the rest of America and discussed the challenges associated with the deployment of telecommunications services on tribal lands. In some of our communities as few as 34 percent of homes have basic telephone service. As we all recognize, this is not only about basic telephone service any more. Although the GAO report found that accurate statistics on broadband penetration are not available, we know that those statistics are even more dismal. The FCC estimates that broadband penetration on Indian lands is less than 10 percent.

Despite the fact that information technology and telecommunications services provide the foundation for tribal nations to effectively fulfill their governmental responsibilities to their citizens, tribal governments were not mentioned in the Telecommunications Act of 1996. NCAI Resolution 05–068 (attached), which was passed at the NCAI annual session in November of last year, calls on Congress to expressly address the communications needs and priorities of tribal nations in any re-write of the Telecommunications Act of 1996.

The most significant barriers to telecommunications and information technology development on tribal lands include: geographic isolation, remoteness and low population densities; lack of capital for infrastructure development; lack of access to

training, technical assistance and planning resources; high unemployment and poverty rates; low educational attainment rates; and public policies that limit the ability of tribal governments to determine their respective telecommunications destinies.

For the past two years, NCAI has collaborated with the Native Networking Policy Center to convene a series of sessions around Indian Country with the goal of identifying policies that are necessary to overcome these barriers. Attached to my written testimony are the two resolutions passed by NCAI last fall that are the product of these convenings.

Because so much background information on the extent of the telecommunications crisis in Indian Country is readily available, the remainder of my testimony will focus on the consensus telecommunications policy priorities that have been identified by tribal leaders.

Telecommunications Policy for Tribal Communities

NCAI has a vision that equitable, affordable, and universal access to telecommunications services, including evolving and emerging technologies on tribal lands, will be available to American Indian and Alaskan Native communities by the year 2010. A number of policy changes have been identified by tribal leaders that will help make this vision a reality.

Acknowledgment of Tribal Regulatory Authority

The rights of tribal governments to assert regulatory jurisdiction over telecommunications activities on tribal lands is an effective means of protecting the public interest of Indian Country and providing universal access to telecommunications services. Some tribes are already successfully exercising regulatory authority in this area. The failure of current law, however, to acknowledge tribal regulatory authority, has engendered regulatory instability and ambiguity, creating numerous barriers to deploying critical telecommunications infrastructure and services and resulting in numerous cases of dispute and litigation regarding:

- Designating eligible telecommunications carrier status, which enables a telecommunications company to access Universal Service Fund dollars and be held accountable to service requirements and public interest and consumer rights obligations.
- Determining the size of local calling areas, which has led to long distance charges for calls from one community to another within a single reservation.
- Purchasing exchanges, which enable tribes to start their own telecommunications companies and provide telephony and broadband services to their communities.
- Assessing possessory interest taxes against right-of-ways, which prevent Tribal governments from deriving important sources of revenue. [1]

In the current broadband era, social, political, economic and public safety discourse are all digitally mediated, and thus, dependent upon telecommunications services. Now, more than ever, telecommunications services are essential to preserving the political and economic integrity and viability of tribes, as well as ensuring the public safety of tribal members and others living on tribal lands. It is clearly within the public interest on tribal lands for tribal governments to exercise their regulatory authority as they are the entities that are best able to determine the most effective and efficient management of telecommunications activities on tribal lands.

Recommendation:

- Acknowledge the authority of tribal governments to regulate telecommunications activity on tribal lands.

Tribal Access to Spectrum

In the past, Federal spectrum management policies have not acknowledged tribal sovereignty, self-determination, or the Federal trust responsibility. As a result, very few tribes have been able to access licensed spectrum for public safety, telephony, community broadband or broadcast media. Instead, the telecommunications industry

[1] *See, e.g., Western Wireless Corporation Petition for Designation as an Eligible telecommunications Carrier for the Pine Ridge Reservation in South Dakota,* CC Docket 96–45 (2001); *Cheyenne River Sioux Tribe Telephone Authority* v. *Public Utilities Commission of S.D.,* 595 N.W.2d 604 (S.D. 1999); *Cheyenne River Sioux Tribe Telephone Authority and US WEST Communications, Inc. Joint Petition for Expedited Ruling Preempting South Dakota Law,* CC Docket 98–6 (2002); *West River Telecommunications* v. *Henry, et al.* A4–02–126, (2003).

has purchased spectrum licenses throughout Indian Country with very little benefit to the public interest of tribes, Native American consumers, or non-tribal citizens living on tribal lands.

NCAI's coordination with the FCC and the telecommunications industry has shown us why gaining access to wireless spectrum is so important for Indian Country. Access to spectrum will ensure that American Indians are not left behind as technology advances in the 21st century. It will enable us to bridge the "digital divide" that persists for many Indian people in part because basic utilities infrastructures are lacking in Indian Country, making it harder to start a business in tribal areas. While the telecommunications industry has made strides in recent years in providing services to tribal peoples, 70+ years of telecommunications infrastructure build-out has not benefited tribal citizens to the same extent that it has benefited the rest of the Nation. The financial incentives simply do not exist for industry to fully serve tribal communities.

Tribal governments, however, because of their responsibilities as governments, do have this incentive and are best situated to inform and assist the Federal Government in the most efficient use of spectrum on tribal lands nationwide. Like water, minerals, and timber, spectrum is a valuable natural resource for tribal communities, and the Federal Government should consult with tribes about spectrum management on tribal lands and ensure that tribal communities have access to this resource for purposes of tribal governance and economic development.

Spectrum access will also enable tribal governments to better provide for the public safety of their communities and to play their part in protecting our homeland. For telecommunications infrastructure and information technology to be developed and utilized in a manner that meets the social, civic, economic, educational and cultural needs of American Indian and Alaskan Native communities and the non-Native citizens living on the tens of millions of acres of Indian land across the country, Federal telecommunications policy must respect the right of tribal governments to self- determination. Tribal governments are uniquely positioned to know what works best for their communities. Access to spectrum is a prerequisite for these decisions at the tribal level.

Recommendations:

- Require government-to-government consultation for spectrum management on tribal lands.
- Ensure tribal access and options for ownership and management of spectrum on tribal lands for telephony, broadband and broadcast media.

Making Universal Service a Reality

Without the Universal Service Fund, telecommunications and information services on tribal lands would not be affordable or available for the vast majority of American Indian and Alaska Native households. Reforming the Universal Service Fund (USF), as a means to protect and preserve the Fund, is essential in sustaining and further developing the communications capacities of tribal governments. In particular, the deployment of broadband services to tribal communities is essential to the future economic, social and civic viability of those communities. Currently, there are many inefficiencies and waste in the USF. To ensure that the Fund is targeted to hard-to-serve and high-cost service communities, the Act should be amended to increase scrutiny of how the fund is being used, ensure parity of requirements and contributions, and eliminate waste in the Fund.

Section 254(b) of the Telecommunications Act of 1996 defines the goals for Universal Service (e.g., affordable access to telecommunications and advanced services for all Americans—including low-income families who live in rural and insular areas). Yet, nowhere in this section is an "unserved community" defined. Likewise, Section 214(e)3 states that if no common carrier will provide the services that are supported by Federal Universal Service support mechanisms under section 254(c) to an unserved community that requests such service, the Federal Communications Commission (with respect to interstate services), or a State commission (with respect to intrastate services), is given the authority to order the "best able" carrier or carriers to provide service to an unserved community which has requested services.

Without a specific definition or criteria for "unserved community" there is no standardized or explicit method for determining what an unserved community is, which has resulted in ineffective policy and unfortunate consequences. For example, there is no explicit means to enforce service requirements to unserved communities. It also promotes "cream skimming" and other industry abuses of the Universal Service Fund.

Recommendations:

- Preserve and protect the USF.
- Amend Sections 254(b)3 and 214(e)3 of the Act to define an unserved area as one in which service penetration is 15 percent below the nationwide penetration rate for any communications service; or 5 percent below national rural penetration rate for any communications service, whichever rate is higher.
- Provide access to broadband and telephony for all American Indians and Alaska Natives.
- Ensure that all telecommunications and information service providers that use the public switched telecommunications network equally contribute to the USF. All eligible telecommunications carriers ought to be held to carrier-of-last-resort standards and requirements, regardless of the technology being used.

Tribally-Driven Solutions

Many tribes throughout Indian Country have prioritized the development of a sound telecommunications infrastructure. Those same tribes generally are among the most successful in carrying out diversified development of all kinds within their communities. It is no question that high telephone penetration rates and easier access to the Internet are hallmarks of healthy economies and healthy communities. But most tribes do not have sufficient resources or information to be able to decide and plan for their telecommunications future.

The Native American Connectivity Act, S. 535, which was introduced by Senator Inouye and co-sponsored by Senator Cantwell, would establish a flexible block grant funding mechanism for the development of telecommunications and information technology capacities in Indian Country. Grants would support infrastructure development, training and technical assistance, planning, assessments and research, and the development of tribal telecommunications regulatory authorities. The Native American Connectivity Act is the type of flexible solution that tribes need to be able to meet the telecommunications needs of their communities.

In addition to giving tribes the resources to develop telecommunications capacity as governments, opportunities to enter the market as providers or coordinate with those who agree to serve our unique and diverse needs must be ensured. In the past, barriers to entry have occurred in the actions of state regulatory bodies and the requirements of Federal granting programs. For example, small rural, or tribal, carriers that purchase their facilities from large incumbent carriers inherit the same restricted regulatory status as the seller, which bars them from accessing the vital Universal Service high cost loop support that enables many rural carriers to sustain their operations. If our communities are to be served and cared for, our own ability to provide services must be respected and protected by everyone, especially our Federal trust and treaty partners.

Recommendation:

- Enact and fully fund the Native American Connectivity Act, S. 535.
- Remove barriers to entry for tribes seeking to become providers of telecommunications services on their lands.
- Permit tribal governments purchasing facilities on their reservations from large incumbent carriers to be eligible for Universal Service high cost loop support.

Media

Broadcast media has proven to be the most powerful, dynamic and valuable means of communicating to broad audiences simultaneously. Native radio stations are essential institutions in their communities and serve a critical role in providing news and information about tribal governance, health, public safety, and community events. It is often the only place on a reservation where people can hear programming for and by people of Native communities. Native radio is also central to Native language and cultural preservation.

Unfortunately, Native Americans suffer from a broadcast media (e.g., television and radio) divide more than any other minority group in the United States. This divide is a result of a number of factors: a lack of content produced and distributed by Native Americans; a lack of access to community-relevant and culturally-relevant content; and, in relation to the low occurrence of Native American media ownership, a lack of access to broadcast spectrum and the prohibitive cost of licenses.

Recommendations:

- Promote broadcast media ownership by Indian Tribes, Alaska Natives and Native Hawaiians to support local radio diversity.

- Establish a Native American media fund that will assist Tribes, Alaska Natives and Native Hawaiians with broadcast media capacity building, content production and content distribution.
- Set aside adequate spectrum for commercial and non-commercial broadcast media use on every reservation.

Conclusion

As Congress revamps the Nation's telecommunications policies, a tremendous opportunity exists to empower Indian tribal governments to close the expanding digital divide in tribal communities. We strongly encourage Congress to consider how Indian tribes should be treated by the Federal telecommunications policies in order to remedy the exclusion of tribal communities from the Information Society. The National Congress of American Indians and our member tribes stand ready to work with you to ensure that Federal telecommunications policy develops in a way that best serves all members of our society and is consistent with the unique status of Indian tribes in the Federal system.

THE NATIONAL CONGRESS OF AMERICAN INDIANS RESOLUTION #TUL–05–068

TITLE: Resolution to Ensure Tribal Governments are Included in the Rewrite of the 1996 Telecommunications Act

WHEREAS, we, the members of the National Congress of American Indians of the United States, invoking the divine blessing of the Creator upon our efforts and purposes, in order to preserve for ourselves and our descendants the inherent sovereign rights of our Indian nations, rights secured under Indian treaties and agreements with the United States, and all other rights and benefits to which we are entitled under the laws and Constitution of the United States, to enlighten the public toward a better understanding of the Indian people, to preserve Indian cultural values, and otherwise promote the health, safety and welfare of the Indian people, do hereby establish and submit the following resolution; and

WHEREAS, the National Congress of American Indians (NCAI) was established in 1944 and is the oldest and largest national organization of American Indian and Alaska Native tribal governments; and

WHEREAS, the 1934 Communications Act, as Amended by the 1996 Telecommunications Act (the Act), does not include Tribal governments, or acknowledge tribal sovereignty, self-determination and the Federal trust responsibility; and

WHEREAS, the Act does not acknowledge the inherent sovereign right of tribal governments to regulate telecommunications on tribal lands; and

WHEREAS, the absence of tribal governments and the lack of acknowledgement of tribal sovereignty, self determination and the Federal trust responsibility in the Act has put in place a mechanism for infringing upon the sovereignty of tribal governments, the public interests of tribes and the consumer rights of Native Americans living on tribal lands; and

WHEREAS, the absence of tribal governments and the lack of acknowledgement of tribal sovereignty, self determination and the Federal trust responsibility in the Act has engendered regulatory instability and ambiguity, posing numerous barriers to deploying critical telecommunications infrastructure and services and resulting in numerous cases of dispute and litigation; and

WHEREAS, the United States Congress is in the process of redrafting, and or, amending the Act; and

WHEREAS, there is a unique opportunity during the redrafting, and or, amending of the Act for the United States Congress to ensure that tribal governments are included in the Act, and that tribal sovereignty, the right of tribal governments to regulate telecommunications on tribal lands, self-determination, and the Federal trust responsibility are appropriately acknowledged; and

WHEREAS, it is crucial that tribal governments, tribal government representatives, tribal leaders, intertribal organizations, such as NCAI, and Native American organizations play an active role to ensure that tribal governments be included in the Act, and that tribal sovereignty, the right of tribal governments to regulate telecommunications on tribal lands, self-determination, and the Federal trust responsibility be appropriately acknowledged in the Act.

NOW THEREFORE BE IT RESOLVED, that the NCAI does hereby support that tribal governments be included in the Act, and that tribal sovereignty, the right of tribal governments to regulate telecommunications on tribal lands, self-determination, and the Federal trust responsibility be appropriately acknowledged in the Act; and

BE IT FURTHER RESOLVED, that NCAI does hereby commit to work with tribal governments, tribal government representatives, tribal leaders, intertribal organizations and Native American organizations to ensure that tribal governments be included in the Act, and that tribal sovereignty, the right of tribal governments to regulate telecommunications on tribal lands, self-determination, and the Federal trust responsibility be appropriately acknowledged in the Act; and

BE IT FURTHER RESOLVED, that this resolution shall be distributed to all tribal government legislative bodies and Indian Country information and telecommunications technology stakeholders; and

BE IT FURTHER RESOLVED, that NCAI does hereby request the Executive Committee to authorize the creation of a Tribal Telecommunications Taskforce to draft a Tribal Title for inclusion in the re-write of the Telecommunications Act of 1996; and

BE IT FINALLY RESOLVED, that this resolution shall be the policy of NCAI until it is withdrawn or modified by subsequent resolution.

CERTIFICATION

The foregoing resolution was adopted at the 2005 Annual Session of the National Congress of American Indians, held at the 62nd Annual Convention in Tulsa, Oklahoma on November 4, 2005 with a quorum present.

Adopted by the General Assembly during the 2005 Annual Session of the National Congress of American Indians held from October 30, 2005 to November 4, 2005 at the Convention Center in Tulsa, Oklahoma.

THE NATIONAL CONGRESS OF AMERICAN INDIANS RESOLUTION #TUL–05–109

TITLE: Statutory Changes to the Communications Act for Telecommunications Service to Tribal Communities

WHEREAS, we, the members of the National Congress of American Indians of the United States, invoking the divine blessing of the Creator upon our efforts and purposes, in order to preserve for ourselves and our descendants the inherent sovereign rights of our Indian nations, rights secured under Indian treaties and agreements with the United States, and all other rights and benefits to which we are entitled under the laws and Constitution of the United States, to enlighten the public toward a better understanding of the Indian people, to preserve Indian cultural values, and otherwise promote the health, safety and welfare of the Indian people, do hereby establish and submit the following resolution; and

WHEREAS, the National Congress of American Indians (NCAI) was established in 1944 and is the oldest and largest national organization of American Indian and Alaska Native tribal governments; and

WHEREAS, Tribal communities are the last communities to be served in America; and

WHEREAS, Tribal governments are not fully included in telecommunications policy deliberations affecting them; and

WHEREAS, the Federal Communications Commission's Tribal Policy Statement has not been clarified or fully implemented; and

WHEREAS, Tribal communities are disparately underserved among all American communities and the Federal Government needs to enforce the Communications Act mandate to provide Universal Service to all communities, without discrimination; and

WHEREAS, the Communications Act requires service to "unserved areas" but does not define what an "unserved area" is; and

WHEREAS, the Communications Act calls for regulatory authorities to act to serve the "public interest" but the "public interest" is not defined and tribal communities are not part of any defined "public interest"; and

WHEREAS, most tribes do not have sufficient information or resources to be able to decide and plan for their telecommunications future; and

WHEREAS, there is presently a lack of clarity as to the forum in which a tribe may seek eligible carrier status; and

WHEREAS, Tribal governments that purchase telecommunications facilities from large incumbent carriers inherit the same restricted regulatory status as the seller and are thus barred from attaining critical Universal Service high cost loop support that other legacy carriers enjoy; and

WHEREAS, the Universal Service Fund is the most important revenue source to a rural telecommunications carrier; and

WHEREAS, the wireless spectrum is public property that the Federal Government converts to private property to deploy telecommunications service; and

WHEREAS, the private ownership of wireless spectrum over Indian lands does not enable tribal communities to own or to access radio spectrum; and

WHEREAS, the preservation of universal and public access to spectrum over Indian lands will enable tribes to use the spectrum to meet public, homeland security and safety needs; and

WHEREAS, tribal communities have a right to receive parity of telecommunications services with non-Indian communities; and

WHEREAS, individuals, entities, tribal governments, state governments or any other entity should be able to present findings in a regulatory proceeding that an ETC incumbent carrier has not provided fair and reasonable service to a tribal community; and

WHEREAS, a finding by a regulatory authority that an Eligible Telecommunications Carrier (one that receives Universal Service funding) serving a tribal community has failed to abide by the requirements of the Communications Act or has discriminated against a tribal community should cause that carrier to lose its authority to receive Universal Service support or any other Federal or state government support, benefit or credit given to the carrier; and

WHEREAS, a tribal community, that is found to be the victim of discrimination by or the failure by the Eligible Telecommunications Carrier (ETC) to comply with the Communications Act's requirements, should be able to choose which new provider should be the ETC to serve the tribal community.

NOW THEREFORE BE IT RESOLVED, that the NCAI does hereby support the following and attached provisions for statutory changes to the Communications Act for Telecommunications Service to tribal Communities; and

BE IT FURTHER RESOLVED, that this resolution shall be the policy of NCAI until it is withdrawn or modified by subsequent resolution.

CERTIFICATION

The foregoing resolution was adopted at the 2005 Annual Session of the National Congress of American Indians, held at the 62nd Annual Convention in Tulsa, Oklahoma on November 4, 2005 with a quorum present. Joe Garcia, President ATTEST: Juana Majel, Recording Secretary

Adopted by the General Assembly during the 2005 Annual Session of the National Congress of American Indians held from October 30, 2005 to November 4, 2005 at the Convention Center in Tulsa, Oklahoma.

Communications Act Changes to Meet Tribal Needs

1) Recognize the needs of Indian Tribes and the Federal Responsibility to Tribes in the Communications Act and acknowledge the authority of tribal nations to choose the appropriate forum for carrier approval.

Issue: Tribal communities are the last communities to be served. In addition, tribal governments are not included in telecommunications policy deliberations affecting them.

Amend: the Communications Act—mission statement—to include Indian sovereign nations in the coverage of the Act; expressly state the United States' trust responsibility to Indian sovereign nations and communities under the Communications Act; and amend section 214(e)(6) to permit tribal nations to choose the appropriate forum for Eligible Telecommunications Carrier approval.

Reason: The FCC has not made a priority of connecting tribal communities nor solved the disparity of services to tribal communities. If the trust responsibility to tribes were clarified, and if tribes were participants in policy decisions that impact their communities, tribes may finally attain access to telecommunications service. In addition, all tribes should be able to choose the appropriate forum for regulation, in keeping with their sovereign status.

2) Target telecommunications service, support and Federal incentives at "unserved areas," thereby serving tribal communities, as required by the "public interest" mandate of the Commincations Act.

Issue: Tribal communities are disparately underserved among all American communities. The Federal Government needs to deliver on the Communications Act mandate to provide Universal Service to all communities, without discrimination.

Amend the Act to Define "unserved areas" as: 15 percent below nationwide service penetration average for that service or 5 percent below nationwide rural area service penetration average for that service, or the higher of the two averages. And, require the FCC to target services to "unserved areas" or tribal communities as part of the regulatory guideline for serving and protecting the **"public interest."**

Reason: The Communications Act of 1934 mandates providing telecommunications service to all Americans at reasonable and affordable rates, with parity of service provided to urban areas. Up to 30–40 percent of tribal communities do not have voice service and up to 95 percent of tribal communities do not have broadband service essential for participation in the mainstream economy. Under current state and Federal regulatory frameworks, tribal and rural communities will remain "unserved." This provides a trigger for Federal action.

3) Provide resource support to tribes to plan for tribal telecommunications needs and learn about tribal options.

Issue: Most tribes do not have sufficient information or resources to be able to decide and plan for their telecommunications future.
Proposal: Create authority to permit loans to be used for feasibility and assessment studies for building or upgrading a tribal telecommunications infrastructure, and provide resources for educational seminars for tribes to learn how to meet their telecommunications needs.
Reason: tribes need to learn how telecommunications can be the platform upon which all tribal services, economic development and social services can be delivered. Understanding the specific needs of a community, including the right telecommunications services for the tribe, requires planning and assessment. Many tribes cannot afford this crucial planning and feasibility study.

4) Remove a crucial regulatory barrier to tribes starting their own telecommunications services by allowing tribes Universal Service high cost support that other independent carriers enjoy.

Issue: Small rural (tribal) carriers that purchase their facilities from large incumbent carriers (mainly Regional Bell Operating Companies) inherit the same restricted regulatory status as the seller—barring them from attaining vital Universal Service high cost loop support.
Proposal: Permit tribal governments purchasing facilities on their reservation from large incumbent carriers to be eligible for Universal Service high-cost loop support.
Reason: the high cost loop support of the Universal Service Fund is the most crucial revenue source enabling telecommunications carriers in rural markets to sustain their operations. Current rules permit some construction costs to be recaptured, but does not provide the same revenue support that rural providers established before May 1997 enjoy. This fix—access to support that legacy companies receive—will enable tribes to serve themselves as a tribal enterprise. Not fixing this provision makes it impossible for tribes to operate their own services.

5) Protect the Universal Service Fund and eliminate inefficient use of the Fund.

Issue: There are many inefficiencies and waste in the Universal Service Fund (USF). To ensure that the Fund is targeted to hard-to-serve and high-cost service communities, we need to apply good government and efficiency principles.
Amend: the Act to increase scrutiny of how the Fund is being used, ensure parity of requirements and contributions, and eliminate waste in the Fund.

A) Require contribution into the Fund by all who use the Public Service Telecommunications Network (PSTN) system;

B) Permit fund support only to service providers that contribute to the USF;

C) Hold all carriers, regardless of technology, to the same carrier requirements and standards of reliability;

D) Target and prioritize "unserved areas" for connectivity: permit new Competitive Eligible Telecommunications Carriers (CETCs)—those seeking USF monies where tribally owned operated or authorized services are already provided—to serve only "unserved areas" to avoid overlap of funding to carriers trying to serve the same areas or serving customers already connected;

E) When serving "unserved areas" hold all carriers or providers who receive support funding or regulatory benefits, e.g., Tribal Bidding Credits, to concrete service outcomes, based on customers actually connected;

F) Assess what portion of USF funds are reinvested in the same service area as the allocations were derived from;

G) Require all carriers to use only real and actual infrastructure costs to be used for USF cost calculations.

Reason: The Universal Service Fund is the primary source of revenues enabling rural exchange carriers to serve the high-cost rural markets. The job of reaching "unserved areas" in rural communities is not done. Yet the fund is over-extended

and newer demands and services are being placed on the Fund. We need to ensure that all providers that receive support from the fund pay equitably into it and we need to eliminate any disparity of requirements or outcomes between differing technologies and providers. We need to re-affirm the principle that scarce Universal Service funds should be targeted (prioritized) for "unserved areas" of the country, not permit overlap of its use by funding competing USF carriers trying to serve the same customers, or fund new CETCs to serve those customers already connected. Those receiving USF funding or government credits must show actual connectivity to continue to receive benefits.

6) Give Tribes the Equal Opportunity to Own and Operate Spectrum Services by permitting the same public financing to tribes for wireless services that rural wireline providers enjoy.

Issue: The key to rural provision of telecommunications services is managing the economics of operating services and finding financing for business startups. The Department of Agriculture's Rural Utility Service loans were essential to the proliferation of rural local exchange services. Yet in the wireless arena, there is no public source of financing for or public ownership of spectrum services for spectrum allocations.
Amend: the Communications Act to authorize loans for tribal governments to borrow public funds to purchase licenses in spectrum auctions to serve their tribal communities.
Reason: Spectrum is the gateway for many future telecommunications services and for many innovative uses of technology. RUS is a public financing source for purchase of wire-line facilities and regulatory territories. However, there is no similar public financing for the purchase of wireless spectrum in auctions. Only deep-pocketed private sector providers purchase spectrum and hold spectrum licenses. We think that tribal communities, with their lack of connectivity in predominantly "unserved areas," need ownership options to manage connectivity for their communities.

7) Protect tribal universal access to spectrum by keeping future spectrum on tribal lands public so all can use it.

Issue: Tribal communities comprise most of the "unserved areas" of America, with the least access to telecommunications services. Each deployment of radio spectrum licenses public property for private use—through the auction of licenses. In the new medium, many new technologies and innovations will emerge. However, each radio spectrum auction further bars access of tribes to the outside world and precludes spectrum use for critical tribal needs.
Amend: the Communications Act—invoking the Act's new tribal trust responsibility—to reserve spectrum over tribal areas as public property, keeping "open spectrum areas" for public—and tribal—use.
Reason: We need to change the telecommunications regulatory environment to give tribal and rural communities a chance at connectivity. Under current rules, the most precious public spectrum are taken out of the public domain for private profit and private use. In Tribal cultures, this violates the sharing of public resources. At this important juncture, the allocation of new medium can provide connectivity and new hope for the least-served Americans. If spectrum over tribal rural communities continues to be sold to private high-bidders, tribes will remain unconnected to the outside world and few tribes would be able to own spectrum services. By keeping spectrum public for universal access by tribal communities, tribes can reinforce the stewardship of public resources. Reserving spectrum on tribal lands for use by all users and providers, the world may dramatically change for tribal communities. Reserving public spectrum on tribal lands will also enhance the deployment of homeland security and public safety networks.

8) Protect tribal consumers in "unserved areas" by sanctioning Eligible Telecommunications Carriers that fail to meet the Communications Act's requirements and give tribes an option to choose alternate providers for the tribal community.

Issue: Rural customers and tribal communities remain "unserved." This is a violation of the Communications Act to provide parity of service or connectivity with urban areas. Carriers or companies receiving Universal Service support or Federal regulatory benefits or credits must be held to the Act's mandates to connect "unserved" communities. Failure to meet the Act's requirements—based on outcome assessments—should trigger options for a tribal community in "unserved areas" to choose an alternative service or a competitive provider.
Amend: the Communications Act to: (1) enable private parties or any party of interest to challenge the performance of ETC's in "unserved areas." And, (2) upon proof

of failure of the carrier to meet the Act's requirement to provide "fair and affordable rates" or parity of service to that "unserved area," the FCC or state shall terminate the ETC status of the carrier; and (3) permit the community to choose an alternative ETC provider and cause the FCC to issue a certificate of convenience (to serve the "public interest") to the new carrier; and (4) receive the same support or Federal benefit the predecessor enjoyed serving that tribal "unserved area".

Reason: In rural areas, Universal Service funding is the essential revenue source for rural telecommunications carriers to operate a business. In addition, many service companies are receiving Federal regulatory credits, benefits or rebates, an important advantage for providers competing in rural markets. When a carrier receives Universal Service funding or Federal benefits, failure by that carrier to meet the Communications Act's mandates to serve an "unserved area" or upon proof that a provider has discriminated against a community in an "unserved area," the carrier should lose the support funding or return the regulatory benefits it has received. Moreover, tribal communities or customers in an "unserved area" ought to have a choice of an alternative carrier or means of service meet the needs of that community in the "unserved area". The new provider or service ought to enjoy the same level of support or Federal benefits provided to the predecessor.

The CHAIRMAN. Thank you very much, Mr. Garcia.

Our next witness is Mark Goldstein, Director of Physical Infrastructure Issues of the GAO.

STATEMENT OF MARK GOLDSTEIN, DIRECTOR, PHYSICAL INFRASTRUCTURE ISSUES, U.S. GOVERNMENT ACCOUNTABILITY OFFICE

Mr. GOLDSTEIN. Thank you, Mr. Chairman and Members of the Committee.

I'm pleased to be here today to discuss the findings and recommendations of GAO's January 2006 report, *Challenges to Assessing and Improving Telecommunications for Native Americans on Tribal Lands.*

According to the 2000 Census, about 588,000 Native Americans were residing on tribal lands. Telephone subscribership rates on these lands have historically lagged behind the overall national rate. In 1990, only 47 percent of Native American households on tribal lands had telephone service, compared to about 95 percent of households nationally.

In our report, we discuss, one, the current status of telecommunications subscribership for Native Americans living on tribal lands; two, Federal programs available for improving telecommunications on these lands; three, barriers to improvements; and, four, the ways in which some tribes are addressing these barriers.

To address these issues, we reviewed FCC and Census data, and interviewed officials at Federal agencies that support telecommunications on tribal lands. We interviewed officials representing telecommunications providers and industry organizations. We interviewed officials of 26 tribes in the lower 48 States and 12 Alaska regional native nonprofit organizations chosen on the basis of demographics and other factors, such as actions being taken on their lands to improve telecommunications. We also visited six tribal lands to learn more about the challenges the tribal members were facing and actions they were taking to improve their telecommunications services.

In summary, we found the following:

One, the most recent Census data from the year 2000 indicate that the telephone subscribership rates for Native American households on tribal lands was still substantially below the national av-

erage. About 69 percent of these households in the lower 48 States had telephone service, which is about 29 percentage points less than the national rate of about 98 percent. About 87 percent of Native American households in Alaska native villages had telephone service, also considerably below the national rate. We do not know the rate for Internet subscribership for tribal lands, due to a lack of such data from either the Census Bureau or the Federal Communications Commission.

Two, the Department of Agriculture's Rural Utilities Service and the FCC have several general programs to improve telecommunications in rural areas and make service affordable for low-income groups, which would include tribal lands and their residents. In addition, FCC created some programs targeted to tribal lands, including programs to provide discounts on the cost of telephone service to residents of tribal lands and financial incentives to encourage wireless providers to serve tribal lands. However, we found that FCC is not collecting sufficient data to assess the extent to which its efforts to increase telecommunications deployment and subscribership on these lands are succeeding. Also, one of FCC's programs to support telecommunications for libraries has legislatively based eligibility rules that preclude tribal libraries in at least two states from being eligible for this funding.

Three, Native American officials, service providers, and others cited several barriers to improving telecommunications on tribal lands. The most frequently mentioned were the rugged rural terrain of tribal lands and the tribes' limited financial resources. These barriers increase the cost of deploying infrastructure and limit the ability of service providers to recover their costs. Other barriers cited include the shortage of technically trained tribal members and the service providers' difficulty in obtaining rights of way to deploy their infrastructure on tribal lands.

Fourth, some tribes are making significant progress in addressing these barriers. For example, we found that several tribes are moving toward owning or developing their own telecommunications systems using Federal grants, loans, or partnering with the private sector. Some are focusing on wireless technologies, which can be less expensive to deploy over rugged terrain. Two tribes of the six tribes we visited are bringing in wireless carriers to compete with wireline carriers on price and service. In addition, some tribes have developed ways to address the need for technical training, and one tribe we visited has worked to expedite the tribal decisionmaking process for rights-of-way approvals.

In a draft of our report, which we provided for agency comment, we recommended that the FCC determine what data is needed to assess progress toward the goal of providing access to telecommunications services to Native Americans living on tribal lands, and how this data should be collected, and then report to Congress on its findings. FCC agreed that more data is needed, but maintained that it is not the organization best positioned to determine what data should be collected. Given FCC's response, we added, as a matter for Congressional consideration, that Congress should consider directing FCC to determine what additional data is needed to help assess progress toward the goal of providing access to telecommunications services, including high-speed Internet, for Native

Americans living on tribal lands, to determine how this data should regularly be collected, and to report to Congress on its findings.

We also suggested that, to facilitate Internet access for tribal libraries, Congress should consider amending the Communications Act of 1934 to allow libraries eligible for library services and technology funds provided by the Director of the Institute of Museum and Library Sciences to either a state library administrative agency or to a federally recognized tribe to be eligible under the e-rate program.

This concludes my statement, Mr. Chairman. I'd be happy to answer any questions that you or Members of the Committee may have.

[The prepared statement of Mr. Goldstein follows:]

PREPARED STATEMENT OF MARK GOLDSTEIN, DIRECTOR, PHYSICAL INFRASTRUCTURE ISSUES, U.S. GOVERNMENT ACCOUNTABILITY OFFICE

Mr. Chairman, Mr. Co-Chairman, and Members of the Committee:

I am pleased to be here today to discuss the findings and recommendations of our January 2006 report, *Challenges to Assessing and Improving Telecommunications for Native Americans on Tribal Lands.*[1] According to the 2000 Census, about 588,000 Native Americans were residing on tribal lands.[2] Telephone subscribership rates on these lands have historically lagged behind the overall national rate. In 1990, only 47 percent of Native American households on tribal lands had telephone service compared to about 95 percent of households nationally. In our report we discuss: (1) the current status of telecommunications subscribership for Native Americans living on tribal lands; (2) Federal programs available for improving telecommunications on these lands; (3) barriers to improvements; and (4) the ways in which some tribes are addressing these barriers.

To address these issues, we reviewed Census data and interviewed officials at Federal agencies that support telecommunications on tribal lands. We also interviewed officials representing telecommunications providers and industry organizations. Additionally, we interviewed officials of 26 tribes in the lower 48 states and 12 Alaska regional native nonprofit organizations, chosen on the basis of demographics and other factors, such as actions being taken on their land to improve telecommunications. We also visited 6 tribal lands to learn more about the challenges the tribal members were facing, and actions they were taking to improve their telecommunications services.[3] We performed our work in accordance with generally accepted government auditing standards from August 2004 to December 2005. For more information about the methodology used, see our report, *Challenges to Assessing and Improving Telecommunications for Native Americans on Tribal Lands.*

In summary, we found that:

- The most recent census data, from the year 2000, indicate that the telephone subscribership rate for Native American households on tribal lands is still substantially below the national rate. About 69 percent of these households in the lower 48 states had telephone service, which is about 29 percentage points less than the national rate of about 98 percent. About 87 percent of Native American households in Alaska native villages had telephone service, also consider-

[1] GAO–06–189, (Washington, D.C., Jan. 11, 2006). Available through GAO's website *(www.gao.gov).*

[2] For our report, GAO defined tribal lands as lands that include any federally recognized Indian tribe's reservation, off-reservation trust lands, pueblo, or colony, and Alaska Native regions established pursuant to the Alaska Native Claims Settlement Act, Pub. L. No. 92–203, 85 Stat. 688 (1971) (codified as amended at 43 U.S.C. §§1601 et seq.) Tribal lands do not include Oklahoma Tribal Statistical Areas, and the population figure of 588,000 does not include the 325,000 Native Americans living on OTSAs. The source of the data that GAO used throughout this report was the Census 2000 American Indian and Alaska Native Summary File. The term "Native Americans" is used to refer to people who identified themselves as American Indians and/or Alaska Natives alone or in combination with one or more races.

[3] The six tribes are: Coeur D'Alene Tribe of the Coeur D'Alene Reservation, Idaho; Confederated Tribes and Bands of the Yakama Nation, Washington; Eastern Band of Cherokee Indians of North Carolina; Oglala Sioux Tribe of the Pine Ridge Reservation, South Dakota; Mescalero Apache Tribe of the Mescalero Reservation, New Mexico; and Navajo Nation in Arizona, New Mexico, and Utah.

ably below the national rate. We do not know the rate for Internet subscribership for tribal lands due to a lack of such data from either the Census Bureau or the Federal Communications Commission (FCC).

- The Department of Agriculture's Rural Utilities Service and the FCC have several general programs to improve telecommunications in rural areas and make service affordable for low-income groups, which would include tribal lands and their residents. In addition, FCC created some programs targeted to tribal lands, including programs to provide discounts on the cost of telephone service to residents of tribal lands, and financial incentives to encourage wireless providers to serve tribal lands. However, we found that FCC is not collecting sufficient data to assess the extent to which its efforts to increase telecommunications deployment and subscribership on these lands are succeeding. Also, one of FCC's programs to support telecommunications for libraries has legislatively based eligibility rules that preclude tribal libraries in at least two states from being eligible for this funding.
- Native American officials, service providers, and others cited several barriers to improving telecommunications on tribal lands. The most frequently mentioned were the rural, rugged terrain of tribal lands and the tribes' limited financial resources. These barriers increase the costs of deploying infrastructure and limit the ability of service providers to recover their costs. Other barriers cited include the shortage of technically trained tribal members and the service providers' difficulty in obtaining rights of way to deploy their infrastructure on tribal lands.
- Some tribes are making significant progress in addressing these barriers. For example, we found that several tribes are moving toward owning or developing their own telecommunications systems using Federal grants, loans, or partnering with the private sector. Some are focusing on wireless technologies, which can be less expensive to deploy over rural rugged terrain. Two tribes of the six tribes we visited are bringing in wireless carriers to compete with wireline carriers on price and service. In addition, some tribes have developed ways to address the need for technical training, and one tribe we visited has worked to expedite the tribal decision-making process for rights-of-way approvals.

Our report has two matters for congressional consideration. First, Congress should consider directing FCC to determine what additional data is needed to help assess progress toward the goal of providing access to telecommunications service on tribal lands, including advanced services such as high-speed Internet, and how this data should collected. Second, Congress should consider amending the Communications Act of 1934 to facilitate and clarify the eligibility of tribal libraries for funding under FCC's telecommunication support program for libraries.

I would now like to present additional detail on the results of our work.

Background

Tribal lands vary dramatically in size, demographics, and location, ranging from the Navajo Nation, with 24,000 square miles and over 176,000 Native American residents, to tribal land areas in California comprising less than 1 square mile with fewer than 50 Native American residents. Most tribal lands are located in rural or remote locations, though some are near metropolitan areas. Also, some tribal lands have a significant percentage of non-Native Americans residing on them.

Tribes are unique in being sovereign governments within the United States. Their sovereign status has been established by the U.S. Constitution, treaties, and other Federal actions. To help manage tribal affairs, tribes have formed governments or subsidiaries of tribal governments that include schools, housing, health, and other types of corporations. In addition, the Bureau of Indian Affairs (BIA) in the Department of the Interior has a fiduciary responsibility to tribes and assumes some management responsibility for all land held in trust for the benefit of the individual Native American or tribe.

Native American tribes are among the most economically distressed groups in the United States. According to the 2000 Census, about 37 percent of Native American households had incomes below the Federal poverty level—more than double the rate for the U.S. population as a whole. Residents of tribal lands often lack basic infrastructure, such as water and sewer systems, and telecommunications systems.

The Federal Government has long acknowledged the difficulties of providing basic services, such as electricity and telephone service, to rural areas of the country. The concept of universal telephone service has its origins in Section 1 of the Communications Act of 1934, as amended, (Communications Act) which states that the FCC was created "for the purpose of regulating interstate and foreign commerce in com-

munication by wire and radio so as to make available, so far as possible, to all people of the United States, a rapid, efficient, nationwide, and worldwide wire and radio communication service with adequate facilities at reasonable charges. . . .”[4] The goal of Universal Service is to ensure that all U.S. residents have access to quality telephone service regardless of their household income or geographic location. A 1995 report by the Census Bureau based on 1990 census data noted that about 47 percent of Native American households on tribal lands had telephone service, compared to about 95 percent of households nationally.[5] In June 2000, the FCC Chairman noted that telephone subscribership among the rural poor was roughly 20 percent lower than the rest of the Nation, while Native Americans living on tribal lands were only half as likely as other Americans to subscribe to telephone service.

Tribal Telephone Subscribership Rate is Substantially Below the National Level and Internet Subscribership Is Unknown

As of 2000, the telephone subscribership rate for Native American households on tribal lands had improved since 1990, but was still substantially below the national rate, while the rate for Internet subscribership on tribal lands was unknown due to a lack of data. According to data from the 2000 decennial census, about 69 percent of Native American households[6] on tribal lands in the lower 48 states had telephone service, which was about 29 percentage points less than the national rate of about 98 percent. About 87 percent of Native American households in Alaska native villages had telephone service, also considerably below the national rate. Telephone subscribership rates for Native American households on individual tribal lands in 2000 varied widely. A few tribal lands had rates above the national level, but the majority of them had rates below the national level. To get a better understanding of telephone subscribership rates by individual tribe and population size, we reviewed data for the 25 tribal lands with the highest number of Native American households. These 25 tribal lands represent about 65 percent of all Native American households, as shown in Census 2000 data, and had a range in telephone subscribership rates from 38 percent for the Navajo Nation Reservation and Off-Reservation Trust Land (located in Arizona, New Mexico, and Utah) to 94 percent for the Turtle Mountain Reservation and Off-Reservation Trust Land (located in Montana, North Dakota, and South Dakota).

While Census data indicate that the average subscribership rate for Native Americans on tribal lands has increased from about 47 percent of households in 1990 to about 69 percent in 2000, changes in telephone subscribership rates since the 2000 decennial census are not known. In order to provide more current data, the U.S. Census Bureau (Census Bureau) has begun to gather telephone subscribership data through a new, more frequent survey that will provide demographic and socioeconomic data on communities of all sizes, including tribal lands. However, because it will take time to accumulate a large enough sample to produce data for small communities, annual reports will not be available for all small communities, including tribal lands, until 2010.

The rate of Internet subscribership for Native American households on tribal lands is unknown because neither the Census Bureau nor FCC collects this data at the tribal level. One survey performed by the Census Bureau that collects data on Internet subscribership can provide estimates for the Nation as a whole, but the survey's sample cannot provide reliable estimates of Internet subscribership on tribal lands. The Census Bureau's new survey will provide data on tribal lands but does not include a question on Internet subscribership. Without current subscribership data, it is difficult to assess progress or the impact of Federal programs to improve telecommunications on tribal lands.

FCC collects data on the deployment of advanced telecommunications capability in the United States, but this data cannot be used to determine Internet subscribership rates for tribal lands.[7] Pursuant to section 706 of the Telecommuni-

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[4] 47 U.S.C. § 151.

[5] Bureau of the Census, *Housing of American Indians on Reservations—Equipment and Fuels,* Statistical Brief, S/B95–11, (Washington, D.C.: April 1995).

[6] The Census 2000 data in this report are for the American Indian and Alaska Native alone or in combination with one or more other races. Households are classified by the race of the householder. When the term Native American households is used, it refers to the total number of occupied housing units where the race of the householder is American Indian and/or Alaska Native alone or in combination with one or more other races.

[7] Section 706(c)(1) of the Telecommunications Act of 1996 defines advanced telecommunications, without regard to any transmission media or technology, as high-speed, switched, broadband telecommunications capability that enables users to originate and receive high-quality voice, data, graphics, and video telecommunications using any technology. See, Pub. L. No.

cations Act of 1996, FCC is required to conduct regular inquiries concerning the availability of advanced telecommunications capability for all Americans. To obtain this data, FCC requires service providers to report a list of the zip codes where they have at least one customer of high-speed service. Because the providers are not required to report the total number of their residential subscribers in each zip code, because tribal lands do not necessarily correspond to zip codes, and because these data do not include information on "dial-up" users (i.e., those who access the Internet without a broadband connection), these data cannot be used to determine the number of residential Internet subscribers on tribal lands. The FCC has recognized that its section 706 data collection efforts in rural and undeserved areas need improvement to better fulfill Congress' mandate.[8]

Native Americans Can Benefit from Several General and Tribal-Specific Federal Programs to Improve Telecommunications Services

The Department of Agriculture's Rural Utilities Service and FCC are responsible for several general programs designed to improve the Nation's telecommunications infrastructure and make services affordable for all consumers, which can benefit tribes and tribal lands. The Rural Utilities Service has grant, loan, and loan guarantee programs for improving telecommunications in rural areas. FCC has several programs (known as "Universal Service" programs) to make telephone service more affordable for low-income consumers and consumers living in areas, such as rural areas, where the cost to provide service is high.

In addition to these general programs, FCC has recognized the need to make special efforts to improve tribal telecommunications and established four programs specifically targeted to improving telecommunications for residents of tribal lands. The Tribal Land Bidding Credit program provides financial incentives to wireless service providers to serve tribal lands. The Indian Telecommunications Initiative disseminates information to tribes and tribal organizations on telecommunications services on tribal lands, including Universal Service programs and other areas of interest. Enhanced Link-Up, which provides a one-time discount on the cost of connecting a subscriber to the telephone network and Enhanced Lifeline, which provides ongoing discounts on the cost of monthly service, provide more support per customer than the regular Link-up and Lifeline programs. As with FCC's other Universal Service programs, the service providers are reimbursed from FCC's Universal Service Fund for the discounts they give to the programs' participants.

Regarding Enhanced Lifeline, we found that, at present, data provided to the program administrator[9] from the service providers can be broken out by state, but not by tribal land, because the reporting form does not ask service providers to indicate the number of participants and amount of funding by tribal land. Because FCC does not have data on program participation and funding by individual tribal land, some basic questions cannot be answered: what percentage of residents of particular tribal lands are benefiting from the programs and how have the participation rates on individual tribal lands changed over time?

An additional Universal Service program, known as E-rate, provides discounts on telecommunications services for schools and libraries nationwide. One of our key findings is that some tribal libraries are not eligible to receive E-rate funds because of an issue involving Federal eligibility criteria. The current statutory provision under the Communications Act does not allow tribal libraries to obtain E-rate funding for libraries unless the tribal library is eligible for assistance from a state library administrative agency under the Library Services Technology Act (LSTA). In at least two cases, tribes have not applied for E-rate funds because their tribal libraries are not eligible for state LSTA funds.

Multiple Barriers Exist to Improving Telecommunications on Tribal Lands

Tribal and government officials, Native American groups, service providers, and others with whom we spoke cited several barriers to improving telecommunications service on tribal lands. The rural location and rugged terrain of most tribal lands and tribes' limited financial resources were the barriers to improved telecommunications most often cited by the officials of tribes and Alaska Native Villages we interviewed. Generally, these factors make the cost of building and maintaining the infrastructure needed to provide service higher than they would be in urban set-

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104–104, Title VII, § 706, Feb. 8, 1996, 110 Stat. 153, reproduced in the notes under 47 U.S.C. § 157.

[8] *Local Telephone Competition and Broadband Reporting,* 19 FCC Rcd 22340 (2004).

[9] FCC designated a not-for-profit corporation, the Universal Service Administrative Company (USAC) to carry out the day-to-day operations of the Universal Service programs, although FCC retains responsibility for overseeing the programs' operations and ensuring compliance with the commission's rules.

tings. For example, more cable per customer is required over large, sparsely populated areas, and when those areas are mountainous, it can be more difficult and costly to install the cable. The Rural Task Force, formed by the Federal-State Joint Board on Universal Service,[10] documented the high costs of serving rural customers in a report issued in January 2000, which stated that the average telecommunications infrastructure cost per customer for rural providers was $5,000, while the average infrastructure cost per customer for non-rural providers was $3,000.[11] Officials from 17 tribes and 11 Alaska regional native non-profit organizations we interviewed told us that the rural location of their tribe is a telecommunications barrier.

Tribes' limited financial resources are also seen as a barrier to improving telecommunications services on tribal lands. Many tribal lands—including some of those we visited, such as the Navajo, the Mescalero Apache, the Yakama, and the Oglala Sioux—have poverty rates more than twice the national rate, as well as high unemployment rates. The 2000 U.S. Census showed that the per capita income for residents on tribal lands was $9,200 in 1999, less than half the U.S. per capita income of $21,600. Officials of 33 of the 38 Native American entities we interviewed told us that lack of financial resources was a barrier to improving telecommunications services.

These two barriers, the rural location of tribal lands (which increases the cost of installing telecommunications infrastructure) and tribes' limited financial resources (which can make it difficult for residents and tribal governments to pay for services) can combine to deter service providers from making investments in telecommunications on tribal lands, resulting in a lack of service, poor service quality, and little or no competition. For example, a representative of the company that provides service to the Coeur d'Alene tribe told us that high-speed Internet was only available in certain areas of the Coeur d'Alene tribal land and that there were cost issues in providing this service to the more remote and less densely populated parts of the reservation. Another provider's representative told us that providing digital subscriber lines (DSL)[12] to most parts of the Eastern Band of Cherokee's reservation would not be profitable because the land is rugged and to connect many of those who live out in remote rural areas would require an investment that would be difficult to justify.

The third barrier most often cited by tribal officials is a shortage of technically trained tribal members to plan and implement improvements on tribal lands. Officials of 13 of the 38 Native American tribes and tribal organizations we interviewed told us that lack of telecommunications training and knowledge among tribal members is a barrier to improving their telecommunications. Some of these officials said they needed more technically trained members to plan and oversee the implementation of telecommunications improvements, as well as to manage existing systems. An official of the Coeur d'Alene tribe, who has technical training, also told us that tribes without technically trained staff would be at a disadvantage in negotiating with service providers. This official added that having tribal members trained in telecommunications was necessary to ensure that a tribe's planned improvements included the equipment and technology the tribe wanted and needed.

A fourth barrier cited by tribal officials and other stakeholders is the complex and costly process of obtaining rights-of-way for deploying telecommunications infrastructure on tribal lands, which can impede service providers' deployment of telecommunications infrastructure. In part, this is because BIA must approve the application for a right-of-way across Indian lands and to obtain BIA approval, service providers are required to take multiple steps and coordinate with several entities during the application process.

Tribes Are Addressing Barriers to Improved Telecommunications in Different Ways.

From our interviews of officials of 26 tribes and 12 Alaska regional native nonprofit organizations, we found that 22 are addressing the need to improve their telecommunications services by developing or owning part, or all, of their own local telecommunications network. Some of those we spoke to told us that they were doing this because their provider was unwilling to invest in improved telecommunications

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[10] Section 254 of the Telecommunications Act of 1996 required FCC to institute the Federal-State Joint Board on Universal Service. 47 U.S.C. § 254(a)(1). The board makes recommendations to implement the Universal Service provisions of the Act. The board is comprised of FCC commissioners, state utility commissioners, and a consumer advocate representative.

[11] Rural Task Force, *The Rural Difference: Rural Task Force White Paper 2,* (Washington Utilities and Transportation Commission, January 2000), *http://www.wutc.wa.gov/rtf* (downloaded August 25, 2005).

[12] Digital Subscriber Line is a broadband connection that provides greater capacity for faster data transmission than can be provided over a conventional telephone line.

services, in part due to the barriers of the tribe's rural location, rugged terrain, and limited financial resources. An additional 10 tribes told us that they have considered or are considering owning part or all of their telecommunications systems.

The tribes we visited are using Federal grants, loans, or other assistance, long-range planning, and private-sector partnerships to help improve service on their lands. In addition, some tribes have addressed these barriers by focusing on wireless technologies, which can be less costly to deploy across large distances and rugged terrain. For example, the Coeur d'Alene Tribe in Idaho is using a Rural Utilities Service grant to overcome its limited financial resources and develop its own high-speed wireless Internet system.

Some tribes are addressing the shortage of technically-trained tribal members to plan and implement improvements on tribal lands through mentoring and partnerships with educational institutions. For example, the Yakama Nation has proposed to connect a local university to its telecommunications system in exchange for technical training for its staff. The Mescalero Apache Tribe has improved its technical capacity by hiring technically trained staff and pairing them with less trained staff, creating a technical mentoring program.

To help reduce the time and expense required to obtain a right-of-way across tribal lands, one tribe is developing a right-of-way policy to make the tribal approval process more timely and efficient. Also, a BIA official acknowledged that portions of the Federal regulations for rights-of-way over Indian lands, including the section on telecommunications infrastructure, are outdated. BIA is currently revising the regulations to better apply to modern utility technologies, including advanced telecommunications infrastructure, though the timeframes for completion of this work have not been established.

Our report, *Challenges to Assessing and Improving Telecommunications for Native Americans on Tribal Lands,* contains more information on these and other tribal initiatives, as well as detailed case studies of six tribes' efforts to improve their telecommunications infrastructure and services.

Summary

Under the principles of Universal Service, as established by Congress, FCC has recognized the need to promote telecommunications deployment and subscribership on tribal lands. Despite improvements in both deployment and subscribership of telecommunications services, as of 2000, Native American households on tribal lands still lag significantly behind the rest of the Nation. Progress in dealing with the underlying causes of this problem is difficult to assess because of a paucity of current information about both deployment and subscribership of telecommunications for Native Americans on tribal lands. Moreover, this lack of adequate data makes it difficult for FCC and Congress to assess the extent to which Federal efforts designed to increase telecommunications deployment and subscribership on these lands are succeeding.

We found there is a statutory provision in the Communications Act which precludes some tribal libraries from benefiting from a Universal Service program. The Act stipulates that a library's eligibility for E-rate support is dependent on whether the library is eligible for certain state library funds. Yet the tribal libraries in at least two states are precluded under state law from being eligible for such funds, which has the effect of making these libraries ineligible to apply for E-rate funds. FCC officials told us that modifying the Federal eligibility criteria to resolve this situation would require legislative action by the Congress. Clarifying this issue could help bring high-speed Internet access to more residents of tribal lands through their tribal libraries.

In a draft of our report, *Challenges to Assessing and Improving Telecommunications for Native Americans on Tribal Lands,* provided for agency comment, we recommended that FCC determine what data is needed to assess progress toward the goal of providing access to telecommunications services to Native Americans living on tribal lands and how this data should be collected, and then report to Congress on its findings. FCC agreed that more data is needed buy maintained that it is not the organization best positioned to determine what that data should be. Given FCC's response, we added as a matter for congressional consideration that Congress should consider directing FCC to determine what additional data is needed to help assess progress toward the goal of providing access to telecommunications services, including high-speed Internet, for Native Americans living on tribal lands; determine how this data should regularly be collected; and report to Congress on its findings. We also suggested that to facilitate Internet access for tribal libraries, Congress should consider amending the Communications Act of 1934 to allow libraries eligible for Library Services and Technology Act funds, provided by the Director of Institute of Museum and Library Sciences to either a state library administrative

agency or to a federally recognized tribe, to be eligible for funding under the E-rate program.

This concludes my statement, Mr. Chairman. I would be pleased to answer any questions that you or other Members of the Committee may have about our findings.

The CHAIRMAN. Thank you very much.

Our last witness is Mr. Ray Baum, Commissioner of the Public Utility Commission, Salem, Oregon.

Mr. Baum?

STATEMENT OF RAY BAUM, COMMISSIONER, PUBLIC UTILITY COMMISSION OF OREGON

Mr. BAUM. Mr. Chairman and Members of the Committee, I am Commissioner Ray Baum of the Oregon Public Utility Commission. I am also chair of the NARUC Task Force on Intercarrier Compensation. Finally, I am a member of the Federal/State Joint Board on Universal Service.

Today I hope to do three things: convince you that intercarrier compensation reform is extremely important and closely tied to Universal Service reform; make you aware of the major role that our Task Force is playing and give you a status report on our activities; and talk about some broad principles that I believe should guide us as we undertake intercarrier compensation and Universal Service reform.

As you know, intercarrier compensation includes all the different fees that carriers charge each other for the use of their networks to originate and terminate their calls. There's a great deal of money involved. Our estimate is that the intercarrier compensation total is about $10 billion per year. In comparison, the universal high-cost fund is $4.2 billion, and the total Federal Universal Service program is $7.1 billion. As a revenue stream to carriers as a whole intercarrier compensation is more important than Federal Universal Service funding.

The bad news is that intercarrier compensation is in serious jeopardy. Here's the rub—and this is the chart that shows you what it is—there are widely varying charges for doing essentially the same thing, originating/terminating calls on local networks. Competition from wireless carriers and VoIP are eroding them. Carriers that have to pay these charges find various ways of avoiding the charges or paying a lesser charge than actually applies, a phenomenon called "arbitrage." Traffic increasingly arrives at the local exchange carriers' network without the information that's necessary to bill for it, the "phantom traffic" problem.

What's the link to Universal Service? If carriers lose intercarrier compensation revenues, policymakers have three basic choices.

Number one, make the companies absorb the losses. Larger companies might be able to do this, if they're given price flexibility, but it would likely be disastrous for small carriers, because losses would be too great to absorb or make up elsewhere.

Second option, allow consumer rates to go up. Most plans that we've reviewed require consumer rates to go up to some degree, via increasing the Federal subscriber line charge. But how far can you go before you threaten affordability?

Number three, recover some of the lost revenues from the Universal Service Fund. Many proposals that we have reviewed shift between $1 billion and $2 billion to the USF. These are large numbers. To even be considered, there would first have to be contribution reform.

There are no easy choices. The Intercarrier Compensation Task Force was created by the NARUC leadership in 2004 to address this critical issue. The goal of the Task Force has not been to create official NARUC policies, but, rather, to facilitate consensus. We have held 12 2-day stakeholder workshops in all regions of the country. About 50 stakeholders attend, representing all segments of the industry, consumer groups, and state regulators. The Task Force made the decision in January to designate a small subgroup of 11 stakeholders that would develop a proposal and bring it back to the broader group. They tell me that they are very close to agreement on a proposal for reform. I have scheduled a meeting of the Task Force tomorrow at the FCC for a status report from the group.

Let me turn, finally, to the principles I believe should guide intercarrier compensation and USF reform.

First, any intercarrier compensation reform must constitute substantial steps toward unified access charges at rates that are economically viable in a competitive market environment. Regarding Universal Service reform, the fund must be more accountable. Reform needs to focus on the consumer, not on the company. The goal is to provide benefits to consumers and accountability to ratepayers. This would require implementing policies in the use of USF that encourage consolidation in high-cost areas and the use of the most efficient technologies where practical. USF should not be used to substitute for services that could be provided through competition, but, in some high-cost rural areas where competition makes no sense, just one carrier should be subsidized.

The task force has proposed that states be given authority to determine the distribution of Universal Service funds eligible to carriage within our jurisdiction, subject to FCC guidelines and approval, under a state allocation mechanism, or block grant approach. This is where the states can do a better job than the FCC, because states possess the essential knowledge regarding our states, the status of our consumers, and the carriers who serve them.

Bringing access charges down and taking steps toward unification of rates is critical to the preservation of the concept of Universal Service so that all Americans, regardless of where they live, can participate in the broadband-driven economy that is a reality for many consumers today and the future for all. If we can't get there, we need to get as close as we can, and we need to set policies that allow us to make further progress in the future.

Thank you, Mr. Chairman. I would be happy to answer questions.

[The prepared statement of Mr. Baum follows:]

PREPARED STATEMENT OF RAY BAUM, COMMISSIONER, PUBLIC UTILITY COMMISSION OF OREGON

Mr. Chairman and Members of the Committee. I am Commissioner Ray Baum of the Public Utility Commission of Oregon. I also Chair the NARUC Task Force on Intercarrier Compensation. Finally, I am a member of the Federal-State Joint Board on Universal Service. Today, I hope to do three things:

1. Convince you that intercarrier compensation reform is extremely important and closely tied to Universal Service reform;

2. Make you aware of the major role that our task force is playing and give you a status report on our activities;

3. Talk about some broad principles that, in my view, should guide us as we undertake intercarrier compensation reform.

Intercarrier compensation comes about because many calls aren't carried exclusively on one network all the way from the calling to the called party. Intercarrier compensation includes all of the different fees carriers pay to each other for the use of their networks to originate and/or terminate their calls. It includes interstate access charges paid to the originating and terminating local exchange carrier for interstate long distance calls. It also includes intrastate access charges for intrastate long distance calls. It includes reciprocal compensation for the transport and termination of "local" calls. Finally, it includes traditional Extended Area Service (EAS) agreements for the exchange of local calls between local telephone companies.

There's a great deal of money involved. Our estimate is that intercarrier compensation totals about $10 billion per year. In comparison the Universal Service high cost fund is $4.2 billion and the total Federal Universal Service program is about $7.1 billion. As a revenue stream to the carriers as a whole, intercarrier compensation is more important than Federal Universal Service funding.

The bad news is that this intercarrier compensation is in serious jeopardy. Here's the rub. All of these different payments for use of local networks are essentially for the same thing—originating and terminating calls. These widely varying charges for the same thing grew up in a regulated monopoly environment to meet various jurisdictional and ratemaking purposes. Competition from wireless services and VoIP are eroding them. Carriers that have to pay the charges find various ways of avoiding the charges or paying a lesser charge than actually applies—a phenomenon called arbitrage. Traffic increasingly arrives at the local exchange carrier's network without the information that is necessary to bill for it—the phantom traffic problem.

To give you a sense of just how serious the rate differences are, consider the following. Small incumbent carriers typically charge about 1.8¢ per minute for terminating interstate toll calls and about 5.1¢ per minute for terminating intrastate toll calls. These same carriers may charge just a few tenths of cent for terminating some local calls and nothing at all for other local calls, particularly EAS calls. You can see the opportunities this creates and why reform is necessary.

Author Thomas Friedman got it right when he wrote in his book *The World is Flat:*

> As consumers get more VoIP choices, the competition will be such that telecom companies won't be able to charge for time and distance much longer. Voice will become free. What phone companies will compete for, and charge for, will be the add-ons.

At least in their current form, access charges probably don't survive in a flat world.

What's the link to Universal Service? If carriers lose intercarrier compensation revenues, policy-makers only have so many choices. We can make the companies absorb the losses, we can allow consumer rates to go up, or we can recover some of the lost revenues from the Universal Service Fund. Let me consider each of these in turn.

Letting the companies absorb the losses may be an attractive option to some and, if the companies were given pricing flexibility, might well be a good option for some of the larger carriers. For some of the smaller, rural carriers, however, the consequences would likely be disastrous because the losses would be too great to absorb or make up elsewhere.

Allowing consumer rates to go up is a part of most plans for intercarrier compensation reform that I have seen. Typically, these proposals increase the mandatory Federal Subscriber Line Charge that we all pay on our monthly bills for telephone service. Some proposals increase the SLC from the current $6.50 to $10 and allow for deaveraging so that some consumers would pay even more than $10. Some

argue that increases of this magnitude would be a threat to affordability, a key component of Universal Service.

Finally, a portion of the losses from intercarrier compensation reform can be shifted to the Federal Universal Service Fund. Many proposals shift from $1 to $2 billion to the USF. Given that the entire High Cost Fund is about $4.2 billion, these are large numbers. Before this could even be considered, there would have to be contribution reform that would broaden the base of contributors to USF.

I hope I have convinced you of the importance of intercarrier compensation reform and of its tight linkage to Universal Service.

The Intercarrier Compensation Task Force was created by the NARUC leadership in 2004 to address this critical issue from a state perspective. The Task Force's approach has been to actively engage all stakeholders from the beginning in order to develop consensus. The goal of the Task Force has not been to create official NARUC policies, but rather to facilitate consensus. We have held twelve, typically two-day, stakeholder workshops in all regions of the country. Typically, about 50 stakeholders attend representing all segments of the industry, consumer groups, and state regulators. It has been a constructive process, stakeholders have a better appreciation of each others' positions and there has been some narrowing of the issues. However, it is very difficult to negotiate with fifty people participating, so, after consulting with the Task Force, I made the decision in January to designate a smaller group of eleven stakeholders from large, mid-size and rural carriers, as well as a consumer representative that would develop a proposal and bring it back to the broader group. They have been working feverishly since that time, holding meetings and calls on a nearly continuous basis. They tell me they are very close to agreement on a proposal for reform. I have scheduled a meeting of the Task Force tomorrow for a status report from the group.

If this group comes forward with a proposal, the other stakeholders and the Task Force will decide whether to support it, oppose it, or take no position. NARUC as a whole may or may not take a position.

Let me turn finally to the principles that I believe should guide intercarrier compensation reform. Some time ago, at the request of the stakeholders, the Task Force developed a discussion proposal. It contained the following principle:

> Intercarrier compensation for origination and termination should be unified at rates that . . . are economically viable in a competitive market environment. Unified means that the rates should be the same for all traffic in both interstate and intrastate jurisdictions, the same for all interconnecting carriers, and the same for exchange and exchange access interconnection.

This does not mean that every local company would charge the same rate. Some high cost carriers might charge a higher rate to terminate a call, but to avoid arbitrage, that rate would have to be the same for all comers, whether long-distance or local, wireless or wireline, VoIP or circuit-switched.

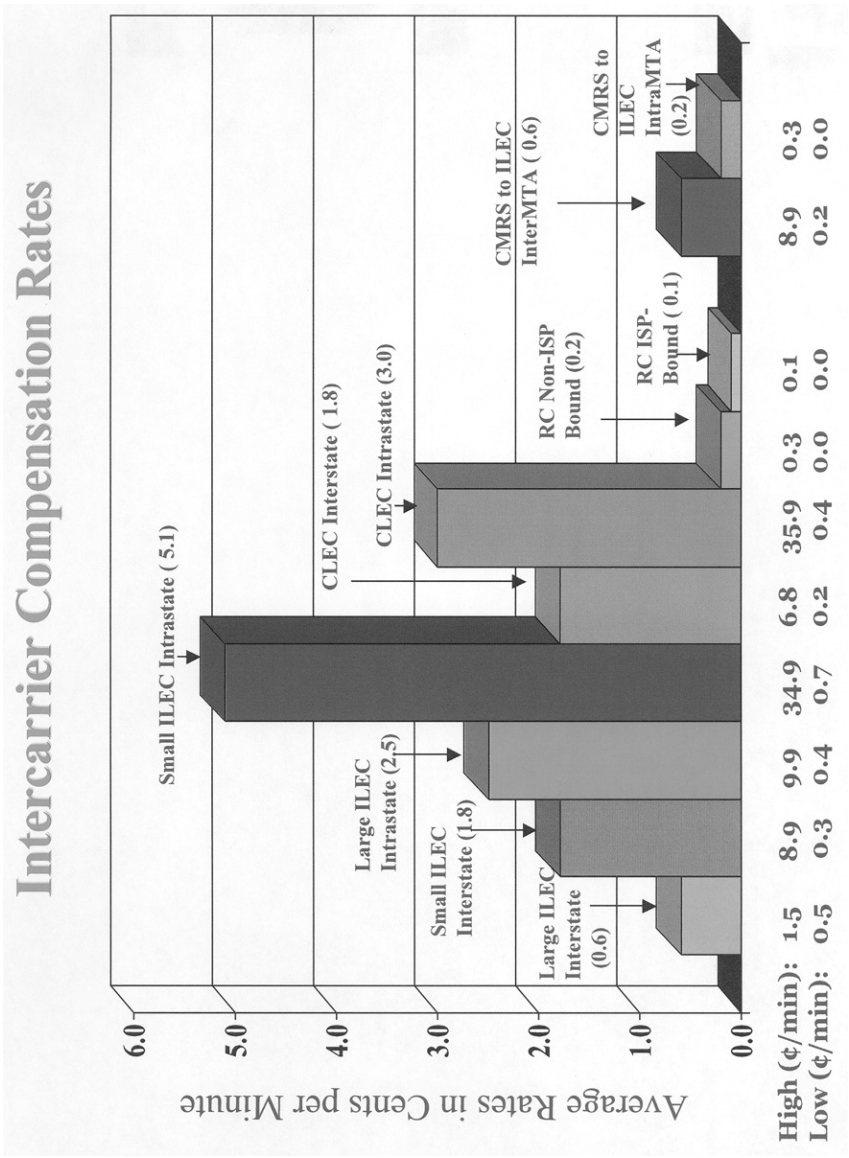
For this Task Force member at least, this statement is what we are about. It recognizes that, in order for unification to occur, intrastate intercarrier compensation rates must be brought in line with interstate rates. While not the subject of today's hearing, I want to note that the Task Force proposal also envisioned that states would be given the authority to determine the distribution of Universal Service funds to eligible carriers within our jurisdictions under a State Allocation Mechanism (block grant). This is an area where we can do a better job than the FCC because we possess essential knowledge regarding our states and the carriers who serve them.

Unfortunately, it appears that we may not be able to get all the way to unified rates for the foreseeable future. The impact on the Universal Service Fund and consumers rates may be simply too great. Here's the issue. Congress mandated in Section 252 a cost standard for traffic subject to Section 251. That has resulted in low, cost-based rates for local transport and termination. Bringing access charges down to that level, which would be required for unification, is very costly.

If we can't get there, we need to get as close as we can and we need to set policies that allow us to make further progress in the future.

All carriers are probably not going to be able to get to the same point at the same time. Smaller carriers start with much higher access charges than larger carriers. They are more dependent on access charge revenues. This means that we may have to establish different "tracks" for large and small carriers as we progress toward the ultimate goal.

Thank you, Mr. Chairman, and I would be happy to answer any questions.



The CHAIRMAN. Well, thank you very much.

There is a vote on. Please set the clock for 7 minutes, and we'll ask each witness to respond with short answers, as possible.

Senator Allen will commence.

STATEMENT OF HON. GEORGE ALLEN,
U.S. SENATOR FROM VIRGINIA

Senator ALLEN. Thank you, Mr. Chairman. I'm sorry I had to be presiding over the Senate and didn't get to hear everyone's testimony here this morning.

And I know there's been a focus—I guess I'll have to do this in stereo or something—focus on the Universal Service Fund. And I was reading the first testimony, and the key here is to try to get broadband to all communities, but, in this case, out in the country, in rural areas. And I look at the Internet as the greatest invention since the Gutenberg press. It empowers individuals, it's great for commerce, it's great for telemedicine, it's great for education. And I think we need to encourage broadband deployment.

I've been looking at ways, and will continue to look at ways, innovative ways, to encourage broadband deployment and penetration. That's why, last week or so, Senator Kerry and I, in a bipartisan group of Senators, along with Senators Sununu, Dorgan, and Boxer, introduced the Wireless Innovation Act of 2006. And the purpose of this Wireless Integration Act of 2006 is to unleash the power of advanced technological innovation to facilitate the development of wireless broadband Internet services, specifically. And I'd like some of you to comment on this, particularly those with, say, Microsoft, Mr. Mundie, since you all may be involved in it.

What our legislation does is, it allocates certain areas within the broadcast spectrum that are otherwise unassigned or unused—they're known as "white spaces"—for wireless broadband and other innovative services. Now, using these white spaces to deliver broadband across the country, I think, creates a new opportunity for innovators and entrepreneurs to provide competitive broadband service at extremely low cost. I think this is particularly compelling in rural areas, and, for that matter, inner cities, where cost or distance are a factor. And in rural deployment, one of the big problems, obviously, whether it's fiberoptics or whether it's wirelines, is a lot of distance, there's a lot of dirt that needs to be dug up between light bulbs. But with wireless approaches, distances can be achieved, or the distances do not become the same problem. And the same for cities, not digging up streets. But I know the focus here is on rural.

It has been the goal of Congress to make sure the Internet is as accessible as possible to as many people as possible, including rural areas. We introduced this WIN Act and the Chairman also introduced a measure to facilitate wireless broadband services. Do you—particularly Mr. Mundie—do you agree with this legislation, that it would go a long way to ensuring that rural America is connected?

Mr. MUNDIE. Yes, Senator Allen. In my remarks, both written and verbal, I endorsed the idea that unlicensed spectrum, in particular, should be part of the solution, and commended the acts that you mentioned as moving in the right direction.

I pointed out that it's particularly important, due to the distances that you mentioned, and particularly in rural environments, that spectrum be made available below 1 gigahertz, where the propagation characteristics are well suited to low-power, but long-distance transport.

These unlicensed bands allow a level of entrepreneurship in the formation of new wireless Internet connectivity that traditionally have not formed when the spectrum was auctioned. And that's why we not only think that making spectrum available below 1 gigahertz is critical, but making it available in the unlicensed model is equally critical in achieving the objectives that you mentioned.

Senator ALLEN. For any other witness, including Mr. Mundie—thank you, Mr. Mundie, and I'm sorry I missed your testimony—if some others would want to comment on this—would you see this Wireless Innovative Act, if it were enacted into law, increasing broadband penetration, but do you also think it would reduce the price of broadband in rural areas?

Mr. Mundie or—yes, sir, Mr. Garcia?

Mr. GARCIA. Yes, thank you for the opportunity.

We need to be sure that—the infrastructure that's in place throughout America differs from region to region, from city to city, from rural areas to suburban areas to big cities. And so, if the infrastructure is taken care of, then adding the next level with wireless should be—I think technology would be a simple thing to do. And so, there wouldn't be a whole lot of costs in developing that, but it needs to be a universal effort, if you will, or a national effort, in order to do it. It can't be just in one area or one state or one region. It needs to be complete throughout the Nation. But it's doable with technology, and I think that the costs could be held pretty low if it was done in the right way. Now, whatever the right way, I don't know what that would be, but it would require more partnerships with a lot of other companies. The people that provide the services currently and any up-and-new-coming ones that may be forming, as well as tribal governments.

And, in terms of spectrum, part of the problem we faced in the spectrum allocation was that the spectrum was all bought out, talking about television and whatnot, and so any newcomers didn't have any access to spectrum, because it was already bought out, whether it was completely used or not. And so, in this case, we want to be sure that spectrum is available to tribes, even if they aren't completely ready to pursue that kind of a development. You know, maybe 2–3 years from now, if we decided that we want to have our own company, then that spectrum ought to be available. But if it's all been bought out, then we're back in the same boat.

Senator ALLEN. Thank you for your——

Mr. GARCIA. Thank you.

Senator ALLEN.—comments. The white spaces will differ from area to area, just like the Washington, D.C., area would have a different white space area than, let's say, Bristol tri-cities area of Virginia and upper east Tennessee. So, it will vary from place to place. The point is that there will be those who clearly purchase for spectrum, and that's very valuable spectrum. This is all occasioned by the transition from analog to digital. But for those areas that are unlicensed, unused, it wouldn't be that the government would say that a tribe or a state gets it. It'll go to entrepreneurs. And there may be tribal entrepreneurs or those who want to serve Indian lands, and that would be a way of handling it, just for a point of clarification.

Yes, Mr. Mundie?

Mr. MUNDIE. Senator Allen, I do think that the use of unlicensed spectrum would ultimately reduce the overall cost of providing this, certainly in the rural areas. It could, in fact, ultimately reduce the costs even in metropolitan areas.

There was an article in the paper this morning noting that both, I think, AT&T and T-Mobile are now availing themselves, in new cell phone products, of the ability to switch dynamically between the unlicensed WiFi bands and their licensed spectrum in the traditional cellular network. This, in essence, reduces the costs even of a traditional cellular operator, because they, too, have equal right to use unlicensed spectrum. So, by eliminating the need for people to participate in auctions, it lowers the overall up-front investment that's required, and, I think, thereby, will create a great many more opportunities.

Senator ALLEN. Thank you, Mr. Mundie.

Yes, sir, Mr. Baum?

Mr. BAUM. Senator Allen, the Oregon Commission would take the position that in order to be qualified to receive USF, you'd have to be providing broadband. And that means——

Senator ALLEN. Say that again? I didn't——

Mr. BAUM. In order to be qualified to receive USF, you'd have to be providing broadband, or have a plan within 3 to 5 years to do so. That would be part of the reform that we would advocate for the USF fund itself.

Now, having said that, one of the problems that's raised by Mr. Sarjeant was, What do you do for the exchanges where the carrier is not a small carrier? Because small carriers have done a better job of providing broadband in their high-cost rural areas than the larger companies have. You're going to have to reimburse those larger companies a little differently than before going forward. But that would incent the deployment, and they'd be looking for those high—or those cutting-edge technologies as a way to deploy it, to minimize the cost. But it would be—it would be a requirement, to receive USF.

Senator ALLEN. Thank you. That's an interesting nuance.

My time is expired for questioning. Thank you all, gentlemen, for your testimony and insight.

Senator BURNS. [presiding] You're the only one here. How do you expire your own time?

Senator ALLEN. Because I'm going to have self-discipline. I'm wearing George Washington cufflinks today, so I'm going to——

[Laughter.]

Senator ALLEN.—show self-discipline. And I only went over 2 minutes, but just because of added testimony from our esteemed witnesses.

Senator BURNS. Have you voted?

Senator ALLEN. Yes, I've voted.

Senator BURNS. You voted. OK.

Senator ALLEN. Have you voted?

Senator BURNS. I have voted.

Senator ALLEN. All right.

Senator BURNS. Mr. Johnson, you were saying that your villages that are in the outlying areas of Alaska rely quite a lot on satellite

communications. Now, I know you can receive from satellite—does each village have their own uplinking capabilities?

Mr. JOHNSON. Yes, Senator. The facilities permit two-way transmit of data and telephony.

Senator BURNS. OK. Now, is it the back haul that's the expensive part of it?

Mr. JOHNSON. We may be dealing with the terminology, but certainly the——

Senator BURNS. I'm saying, in other words, if I'm an operator, and I live in Anchorage, and I communicate with you, you have the ability, then, to uplink the return conversation on the two-way interact. In other words, it runs two ways.

Mr. JOHNSON. Certainly, yes, it's duplex. It functions well——

Senator BURNS. Just like——

Mr. JOHNSON.—in that regard.

Senator BURNS. Just like a wired line.

Mr. JOHNSON. Yes, sir.

Senator BURNS. OK.

Mr. JOHNSON. Although it has to be transmitted to the satellite, which results in a delay. But, yes, it does work in that way.

Senator BURNS. Well, the delay's not very much, though, is it?

Mr. JOHNSON. Technical advances have improved the functioning of the satellites, so that the signals don't have to be what we call "double hopped" in the case of telephony, but there is a lag, and it is a technical problem.

Senator BURNS. In data?

Mr. JOHNSON. Yes, sir.

Senator BURNS. It just seems like, to me, if there's e-rate, and you've got satellite service in communications in your libraries and schools, why isn't there a central location to either wire in or use wireless or WiFi or WiMax in a village in order to plug into that? Why is that not happening?

Mr. JOHNSON. Technically, that's certainly something we can do. The provision, for example, in the school, is intended to be used for the school, for educational purposes.

Senator BURNS. OK.

Mr. JOHNSON. And the program has not permitted general usage of the facilities, because once again, that's not the purpose of the program. The program is to support the educational function, not to support just general usage of the capability.

Now, I should add that, the issue becomes one of capacity. Certainly, there's sufficient satellite capacity to support telehealth and educational needs. But if we are going to try to provide this service to everyone that might want it, assuming it's affordable, over a satellite, it would probably be a discussion. But I don't think we have the current capacity overhead to do that, at this point.

Senator BURNS. You don't know what bandwidth is available to each village through schools, libraries, and your healthcare facilities?

Mr. JOHNSON. At one time, I knew that answer. It is provided for that there is a given capacity that's made available. But obviously more users require more bandwidth. And there is a limited amount of throughput that you can obtain on a given satellite.

Senator BURNS. OK. Mr. Squires, explain to me, on compensation, intercarrier compensation—seems like that's been a discussion in Montana for a long time. For this committee, how do we take care of that?

Mr. SQUIRES. It certainly has been a topic of discussion for a long time in our state, as you know very well, Senator. You heard the story of the three-legged stool during the hearings that you held on USF last week. Intercarrier compensation is but one of those legs. The other two, of course, being Universal Service funding and local rates. As I mentioned in the summary of my testimony, I think we've tackled, at least from my company's standpoint, the local rate issue by rebalancing some of those local rates. Indeed, our local rates now exceed the local rates of Qwest, the RBOC that neighbors our service territory.

But for intercarrier compensation, as I mentioned, the cost certainly is not zero. There is a cost associated with that. I think the way that we go about tackling that, Senator, to address your question, is to give the Commission, the FCC, the authority to implement a unified rate for intercarrier compensation in both the interstate and intrastate jurisdictions. The discussion has been that there will be a unified rate that would apply to rural carriers and a unified rate that would apply to nonrural carriers.

I believe that that's the way to approach the problem. I think that we need to get away from the divergent rates in order to address the arbitrage problems that are clearly going on. We saw that in our EAS implementation. All of a sudden, the interstate percentage of use was swapped around as carriers tried to arbitrage our EAS system. So, I think a unified rate, and clear authority in the Commission to implement that, is the first major step in addressing the issue.

Senator BURNS. OK. Thank you very much.

Mr. Mundie, I was interested in your testimony. You said rural areas are important to you, and then you bought Great Plains—and I'm familiar with those people—and Fargo, North Dakota. Well, to us that live in Montana, Fargo is not rural.

[Laughter.]

Mr. MUNDIE. It's all relative, sir.

Senator BURNS. It's not even relevant. But I'll tell you the challenges we have, though. And I think probably Mr. Garcia, Mr. Squires and Mr. Morrison understand. The cities of a thousand people, that's rural. And then we have some smaller areas—then they go out from there, into the rural areas. That's our greatest challenge. And I realize that's our highest-cost challenge.

I was interested in Mr. Baum saying that in Oregon it's a requirement for a company to have a plan or is actively deployed in broadband before they can receive universal funds.

Mr. BAUM. That's what we propose to do, recommend that the joint board do, and the FCC do, in the reform of the USF mechanisms for both the rural and nonrural carriers.

Senator BURNS. OK.

Mr. BAUM. It is in the Federal statute, but the FCC has interpreted it to not include broadband deployment as part of the services provided by USF. It's explicitly excluded by FCC rule. So, we want to include it and then give companies 3 to 5 years to do it,

because some of the companies, particularly the RBOCs, the Bell companies, haven't been as good at building out broadband as some of our small companies.

Senator BURNS. That is true.

Mr. BAUM. But you're going to probably have to change the mechanism by which you fund those high-cost areas for the bigger companies, because they're undersubsidized right now. And so, that's going to have to happen in connection with it to make it actually work. But you have to incent them to do it. You don't get it unless you have a broadband plan—deployment plan, in place.

Senator BURNS. Tell me how eastern Oregon is doing.

Mr. BAUM. Well, if you're a small carrier in your town, you're doing pretty well. Everybody has broadband for $29.95. If you're in a Verizon area, you're capped, or you're trying to piggyback on wireless. So, it's a little bit night and day, and it's——

Senator BURNS. In other words, you're saying you're doing better over in the Willamette Valley than we're doing out east, huh?

Mr. BAUM. Well, in some areas out east, like in the city of Helix, 300 people, they have broadband to everybody. In the city of La Grande, a city of 12,000, broadband's been capped by Verizon. They don't have DSL service widely available there. They do have some. And they don't have that DSL service available up the branch to towns with 2,000 and 3,000 people. And that's because they're not built for that kind of service. They're a big company, and they don't get subsidized like the local rural company does that's 30 miles away in Helix. And so, they don't put the money into the exchanges, and it doesn't fit their business model, nor does it provide the return their investors expect. And you can't blame them for it. It's just that their business model is focused on urban/suburban areas, where they're doing battle with cable. And they tend to ignore the rural areas. And it's just logical for them to do that to satisfy Wall Street and the things they have to meet.

Senator BURNS. When you go on up into Willamette, say you get down around Eugene and, say, South Cottage Grove—I can name all them little towns; you didn't know I knew that, did you?

Mr. BAUM. No, I didn't know that.

Senator BURNS.—and Grants Pass, and go right over to Medford and——

Mr. BAUM. Yes.

Senator BURNS.—and Ashland, and keep right on going, and——

Mr. BAUM. Yes.

Senator BURNS.—and pretty soon you run out of Oregon. Those areas—now, is that served by Verizon in that area down there?

Mr. BAUM. Qwest serves most of that——

Senator BURNS. OK.

Mr. BAUM.—part of Oregon. And then we have some cooperatives and some things scattered through there. But they do have—you get outside town 5 or 10 miles, and you have problems with broadband service, even in the Willamette Valley.

Senator BURNS. What's it going to take to get that out there? Can USF funds influence that?

Mr. BAUM. Yes. I think you're going to have to rebalance the fund. And the rebalancing means you're going to have to add some money to it after you fix the contribution mechanism, because

you're moving these charges out in the open, from implicit charges out in the open. And part of it's going to have to be subsidized by the USF fund. And you have to face that reality. But you've got to fix the contribution mechanism first. And then you can require—as part of receiving that funding, after you rebalance and fix the rural/nonrural carrier problem, then you can require them to; "Hey, if you're going to get USF, you've got to have broadband deployment. If you don't have it now, you've got to have a 3- to 5-year plan to show how you're going to do it." And you incent the companies to do that. And after you fix the distribution mechanism so it treats the exchange that the company serves as per who the customer is, not who the company is that serves that exchange.

Senator BURNS. OK. Mr.——

Mr. BAUM. Once you do that——

Senator BURNS.—Mr. Squires, in Montana would that kind of a requirement on our USF funds, would you support an idea like that, for us, in Montana? That might take a little thought.

Mr. SQUIRES. Yes, I'm trying to follow all that Mr. Baum was saying, Senator. As I understand what Mr. Baum's comment was, we would have to move some of the implicit recovery that's now in intercarrier compensation into Universal Service funding. Certainly that has to be part of the solution. So, for our state, in Montana, I do believe that that would be part of the answer. If we're going to adopt a unified rate and move recovery out of intercarrier compensation, that recovery does shift to Universal Service funding, and most likely would require a reindexing of the Fund.

Senator BURNS. Mr. Mundie?

Mr. MUNDIE. Yes, sir, I wanted to offer one thought regarding your comment about Fargo. Indeed, we agree with you that Fargo is a metropolitan area——

Senator BURNS. Well, I was kind of kidding you there.

Mr. MUNDIE. But there is an important point. To be competitive, our employees, who actually mostly live outside of the city, in the rural parts around Fargo, they need to be able to telecommute to work to be competitive at Microsoft and competitive with the cost of labor around the world. And once you leave the city, their ability to get that kind of broadband connectivity in the farms and others around that area, drops off dramatically. So, I think this whole concept of rural has to be thought of as even the things around the cities of a thousand, or even a couple of hundred thousand, because that's where a lot of the workforce, who want to participate in these high-tech opportunities, want to reside in those environments. And so, I think these issues of spectrum, unlicensed or otherwise, novel models of providing access, allowing entrepreneurship to occur out there, they're all critical, even in those areas surrounding the places where we are able to operate the businesses, but the employees themselves are still not getting what they want.

Senator BURNS. That is true, when we started doing a transportation bill and everything else, we got to talking about telecommuting and its impact. Out here, Route 395, between here and, let's say, Springfield, Virginia, from 6 in the morning until 9 o'clock is the world's largest parking lot. We cannot out-build America's love for the automobile. I mean, you could put three more lanes out there, and they'd just fill them up. What we've said, with the im-

pact on the environment, automobiles, and everything else, now we're estimating out here—I think I saw a little transportation study in Virginia where almost 30 percent of the people only come in to their offices 3 days out of the week. The rest of the time, they telecommute. And that number keeps growing especially when you've got better services, if you've got DSL into your neighborhood, you can still do your work from home, especially if you're in the information business. So, what we did on that transportation bill was the right thing to do, but that was way back when, and nobody heard of anything like that before. But I'm glad we're moving in that direction.

I want to thank all the witnesses today. I enjoyed your testimony very much as we move this forward. I will tell you, there will be a lot more emphasis put on broadband and broadband services in this next bill than we had in the 1996 bill, because I think there's not a Member of Congress now that's not aware of—oh, you want to do something?

The CHAIRMAN. [presiding] I'd like to ask some questions.

[Laughter.]

Senator BURNS. Oh. OK. These chairmen, they really get unhandy every now and again, folks.

[Laughter.]

Senator BURNS. But—well, I was just ending up mine, and then you can have it.

[Laughter.]

Senator BURNS. But thank you very much, Mr. Chairman, for holding this hearing.

The CHAIRMAN. Thank you.

No one's mentioned the Antideficiency Act yet. I think we ought to take a good long look at what we're doing, because, very clearly, the White House and OMB seem to think that this tax spending is subject to the Antideficiency Act, that right now they tell me they think they can overcome it temporarily. I've got news for them, it's not subject to the Antideficiency Act. And if it takes a specific amendment to this bill to say that, we're going to have to do it.

This is a means of equalizing the cost of telecommunications. And it surges and drops and surges and drops depends on a lot upon demand.

But, beyond that Mr. Mundie, what you and Senator Burns were just talking about sort of worries me a little bit. Telecommuting for people who live in an urban situation like this, in a megalopolis like this, if you consider this total area here, tremendous population, that's a demand we hadn't figured on, in terms of this Universal Service cost. And if broadband is going to be assured to people who live 20 miles out of town, we're going to subsidize that for this fund, they may be right that this is subject to Antideficiency Act concepts, because that's a surge I don't think we're prepared to take on right now.

Making it available—making broadband coverage available, obviously, is one of the necessities, but isn't the first necessity to assure that every American has telecommunications?

Mr. MUNDIE. Yes, sir, I certainly believe that the concept of Universal Service, as the name implies, is that everyone should be pro-

vided some basic communications capability. When the concept was created, it was about assuring everybody had essentially equal cost to the consumer of getting a black telephone.

I think the real question at hand for the United States right now is, what is the Internet equivalent of a black telephone? In other words, what is the basic Internet access capability that all Americans should be entitled to get at a nominally effective price? And I want to point out that I think that that question should be asked in the context of international competition, not the big cities in the United States versus the rural part of the United States, but the United States against Japan, Korea, China, India, and others. And I think both of these are important questions.

If it turns out that the native people in Alaska or the tribal people, or the people in the rural parts of the country—if they don't have broadband, broadband that's competitive with that which is going to be made available in these other countries, their ability to participate as telecommuting workers, if you will, or outsourced workers, to the major enterprises of the world, will not be competitive. Today, we can move work to India easier than we can move it to many places in Montana or Alaska. And so, if these people, who are well trained and basically fully skilled, can't be put into the global workforce because of the lack of telecommunications capability, then they are going to be condemned to essentially a declining standard of living, and the country with it, overall.

So, I think these concepts are not only critically important to get right relative to our own domestic policy, but I think they have to be indexed to what the world is defining as competitive telecommunications.

The CHAIRMAN. Do any of you disagree about the fact that the funds should be continued with a connection-based fee schedule? Any of you disagree with that?

Mr. Johnson?

Mr. JOHNSON. Mr. Chairman, I believe that the best approach enables the FCC to take a look at a variety of contribution methodologies and make their best judgment as to how they ought to put that together. But I think it's too early to embrace that particular concept——

The CHAIRMAN. But if we leave it up to them to set, the OMB's right, that it is a tax rather than a fee agreed to and set by the communications industry. Do you disagree with that? I don't think we ought to let it be taken up to the point where an FCC can set it, and another FCC, depending on the political hue of that FCC, can change that. This is not a tax, this is a company-based—or industry-based plan. It was an interstate rate pool. As a matter of fact, it came into being because Senator Inouye and I demanded that Alaska and Hawaii be included in the long-distance telephone system. Did you know that? I don't know if you knew that.

Mr. JOHNSON. OK.

The CHAIRMAN. And the industry found a way, through an interstate rate pool. Now, we've taken the interstate rate pool, and, because of the Snowe-Rockefeller amendment, we made these monies available to schools, libraries, and health facilities. But, again, that was for interconnection, it wasn't for operations or something else. It was still for communications services.

Now, if we're going to have communications services, then, somehow or other, this total collective industry ought to decide who's going to pay into this fund. Do you disagree? Anyone disagree? You seem to be shaking your head, Mr. Johnson.

Mr. JOHNSON. It's a detail inquiry. It's the kind of decision that Congress can make. I'll just say that.

The CHAIRMAN. We thought we made it once. But, still, they're saying that this existing system is subject to the Antideficiency Act. You know what that means? That means the time comes when they put a level on it, and you can't pay any more out. And someone has to decide who gets the money that's under the line and who doesn't get paid. I don't think that's a ubiquitous system. If any bureaucrat—I don't care whether he's in the White House or the OMB or FCC—can make the decision who doesn't get the service, that is not a Universal Service, in my judgment.

Yes, sir, Mr. Garcia?

Mr. GARCIA. Yes, sir. I'd like to address a piece of that, that the highest priority ought to be for the unserved communities, the unserved peoples in the United States of America. The next priority ought to be the underserved. And the next priority, then, would be the rest of America, as was said earlier today.

But in terms of the Universal Service Fund, I don't know if the Universal Service Fund's intent is to subsidize operations, which I think it is, more so than development or expansion of services provided by companies. Now, the smaller companies—if the criteria is one of revenue and profit and economics, if you will, the criteria is that, then the companies that are going to expand are the ones that are going to be bringing the revenues; and so, they're not going to look at the underserved or the unserved areas as a means for expansion. And so, the Universal Service Fund is what's available, but I don't believe that it is meant for expansion or for development thereof, because the funds just aren't adequate enough. Whereas, if the criteria is not driven by revenues and profits, which the big companies are looking at, you know that a large company that's based out of an area like Washington, D.C., is not going to set up shop out there in New Mexico or Arizona in a remote area, because economically it's not feasible.

The CHAIRMAN. Mr. Garcia, it was my understanding it was for the connection. When we talked about Universal Service Fund, it was to assure there was a connection for everybody. And the Snowe-Rockefeller amendment talks about the connection to schools, libraries, and health facilities, the ability to carry that service. If you look at what's happened in our state when we have telemedicine, instead of sending a crew of doctors into a village, we have a health aide there, and the health aide has the woman stand in front of this facility, and they take a photograph—an X-ray, and they send that X-ray by e-mail down to Anchorage, or even over to Mayo's, and they decide whether that woman has to come to a hospital. Before, we sent teams of doctors around. We reduced costs in one area of government by a system run by the industry itself.

I agree with you on the priorities but what we should say is that the absolute rule is that every American must be connected to this new telecommunications system, or communications system. And Mr. Mundie has it right, if we're going to be part of the global econ-

omy, then everyone in our country has to have access to the global economy.

Now, if that happens, I would urge some of your commissioners to look at this with us—Who's going to watch the payments out of that fund? Congress can't do that. And you all can't do that either, as commissioners. But we ought to have some standard somewhere. We've heard stories about portions of buildings that had to be torn down in order to rebuild so that they could be wired into the system of communications. And that was considered to be a cost of wiring, of making the communications available to those buildings. I hope that's a thing of the past, because that was not what we understood that the Fund would be used for. But, still, there ought to be a system here where someone watches that. Should we say that the state commissions should watch that?

Mr. JOHNSON. Certainly, the state commissions are closest to the needs of their individual states. It is a shift. It's a new responsibility. But I think that state commissions, with perhaps some guidance from the FCC, in terms of national standards, would be good administrative agencies—or agencies to oversee that.

The CHAIRMAN. What do you think about that, Mr. Baum?

Mr. BAUM. Well, I think that's one of the key ways to solve your problem. Once you rebalance the Fund and figure out what you want to pay for, or the FCC does, then the FCC could determine what each state's allocation should be, then that state commission, subject to FCC guidelines and approval, would then be responsible for making sure that broadband deployment occurs to their consumers, based on the specific needs of their states.

They wouldn't be able to get beyond that fund, so to speak. It would be set, and make allowances for the geography differences in Alaska and other places that are insular in nature. Once those are taken into consideration, then the state would have a responsibility to make sure that the money was spent properly. They would audit those funds, making sure that broadband deployment occurred in the underserved areas, and then they'd have the ability, then, to designate the carriers that would receive those funds and make sure that they are spent properly.

The CHAIRMAN. Let me interrupt you right there. No one's addressed that yet today, either. And that is, we have a carrier, let's say it's the carrier of last resort. A competitor comes in. We've raised this question in other hearings, so I'm sure you all know what it is. The existing carrier probably has a higher cost than the new competitor. Currently, today, with a new carrier, it gets USF funds. They get the same amount the existing carrier gets, which, by definition, is greater than their cost. Do you all agree, we should find some way to deal with that?

Mr. BAUM. Well, there's a couple of ways to deal with it. One of them is, is you adopt the cost of the most cost-effective carrier, which is what these wireless folks——

The CHAIRMAN. Well, that's going to put one carrier out of business.

Mr. BAUM. That's correct. So, the better approach would be to either turn it over to a state commission to decide which one of those carriers should serve that area. It might not even be able to serve one.

The CHAIRMAN. Well, we want competition, don't we?

Mr. BAUM. Well——

The CHAIRMAN. Why should we let the commission decide which carrier's going to survive?

Mr. BAUM. Because some areas are so high cost to serve that they might not need more than one carrier. When we get multiple CETC designations, we tend to balloon the fund.

The CHAIRMAN. If we decide that, that would mean there would never be competition for that existing carrier. Do we really want to decide that?

Mr. BAUM. Only in certain areas that can't be served economically by two carriers, that are lucky to support, economically, one.

The CHAIRMAN. But——

Mr. BAUM. Other areas, you'd have competition.

The CHAIRMAN. You look nervous, Mr. Mundie. You agree?

[Laughter.]

Mr. MUNDIE. No, sir. There are two things we have to really contemplate now. One is that the rate at which the technology continues to change is much higher than it was in the period of time where many of these traditional voice-based systems were created. I mean, you know, we had the Telecom Act of, what was it?—1933; and the next time we wrote one was 1996. The fact that we're contemplating another one now, 10 years later, indicates the rate of change. That rate of change, I think, particularly including wireless communications, is actually going to increase, not decrease, during this period of time.

The CHAIRMAN. Well, we hope we draft a bill that will accommodate changes in communications better than we did in 1996.

Mr. MUNDIE. So, I might suggest that we need to think of the country in three places, the major metropolitan areas, the Congress and the FCC need to think of them as being competitive on a global basis. They'll set the standard for what is going to be considered competitive telecommunications in the country. The second tier down is a place where it is, I'll say, possible at any given moment in time to expect that there would be multiple solutions, whether wired, wireless, or multiple other technologies. And then the third is essentially at a moment in time where it really is not economic to ask more than one person to try to build the combination of infrastructure and distribution to do it. In that case, I think we might be better off to have reverse auctions, you know, for some stipulated amount of money, for the third tier, that only give a temporary grant of that funding. And at the end of that time, if they're still the only person who wants it, it can be renewed, but if other people want to come in, based on new technologies, there should be a natural expiration. And I think that the people who decide to bid on those businesses should contemplate that model.

In the middle category, where there are two different ones, I think we need to move more to a model where the consumer is essentially the one that's directing his choice to the carrier and technology that they want, rather than making essentially a bureaucratic- or commission-based decision as to how these funds should be allocated.

The CHAIRMAN. Well, where there are competing carriers, fine. We've got the situation, in most rural areas, where there's one carrier.

Mr. MUNDIE. And that's why I think there's two components to how to improve that situation. One is, if there's only one carrier of the kind that we traditionally think of as carriers, then, you know, we should probably let them get access to whatever funding's going to be available through some reverse auction process, so it at least draws out other people.

I think the other thing is, essentially, this unlicensed spectrum. It is another grant, equivalent to money, that will bring out people with new ways of providing those services, whether it's the community itself—as Mr. Garcia said, some of the tribes are essentially starting to operate their own networks. I think we've seen, in many places—and we are seeing in many places outside the United States—that local communities will step up and do these things for their own account, if they don't have to overcome the issues of spectrum access, auctions and other things, in order to be given access. And because of the rapid growth of high-volume, low-cost computing and telecommunications equipment, particularly in the wireless area, this is possible to a degree that wasn't possible in the past.

The CHAIRMAN. I'm sorry to do this to you, but I've got a series of questions that we wanted to have answered. So, if you wouldn't mind, just let me ask them, and give me your answer, as quickly as possible, or, if you want to send it in, it's all right.

Mr. Garcia, you, yourself, mentioned the problem of rights of way across tribal lands. This is a substantial problem in many areas. Should we legislate on that?

Mr. GARCIA. Could you repeat the first part of the question, sir?

The CHAIRMAN. I said, you mentioned, yourself, the problem about rights of way on tribal lands. Several others have, also, today, discussed that. Should we legislate that FCC or someone has the right to require tribes to give us rights of way across tribal lands?

Mr. GARCIA. No, I don't think so. I think this goes back to sovereignty of the tribes and good government-to-government relations or government-to-corporate business functions. And there are methods in place that tribes can use to come to agreements and come to terms in contractual or lease agreements and whatnot. And so, I think that part ought not to be legislated.

The CHAIRMAN. Well, even Federal lands are available, even state lands are available. There aren't any other lands in the country that aren't subject to rights of way for communications. And you're saying that Indian lands should be immune from any type of access, other than what the tribes say is OK. And that means that there's going to be a toll at the bridge, right? They're going to charge a lot more than others charge for their rights of way. I assume you've read Mr. Goldstein's report.

Mr. GARCIA. No, I think it should be within reason, but it is the opportunity to go into a partnership in contractual agreements as many rights of ways and lease agreements occur. And what is a fair, price to pay, if you will, for another right of way in any other part of the country or any other lands where we have infrastruc-

ture power development or power crossings or gas lines or what have you. It should be within the rights of the tribal government to determine those agreements.

The CHAIRMAN. All right.

Mr. Baum, I was interested in this. And do you think we should have an industry-led solution to this problem you've outlined, or should we try to get the FCC to solve it?

Mr. BAUM. Well, we're going to try the industry solution. And that's what the Task Force has done, is they've turned this matter over to the group of stakeholders, and they're going to present, we hope, tomorrow, a proposal that moves us forward to resolve this on an industry-based solution.

The CHAIRMAN. Is there a timeframe on that?

Mr. BAUM. We hope to have the report tomorrow to the other stakeholders, and then we gave them until the end of this month, or March 31st, to come to our task force with a plan that's been endorsed by specific companies that have agreed to it, and at that point in time, our task force would take that up, as state commissioners, and then we would—we have the option of referring that to the FCC for further consideration.

The CHAIRMAN. Mr. Sarjeant, do you think we should give some incentive to companies to help resolve the high costs of certain areas? We seem to assume that there are high-cost areas, but in the past, most companies tried to solve their own problems. It looks like, as this becomes more ubiquitous, in terms of a total system, that we may lose that company initiative. Should there be some incentive to companies to try to resolve the high cost of the areas in which they operate?

Mr. SARJEANT. Senator, I think the answer to that is, yes, but in a limited and targeted way. And you allude to our history, which, as we grew up in a monopoly world, a larger company that may have had a mix of service areas, both low- and high-cost, could average out the cost across the high- and low-cost areas and come up with a composite cost for each area. But as we've moved out of the monopoly environment, and we've moved into a competitive environment, companies like Qwest see astounding competition in rural—in our urban areas, in particular, and our suburban areas, and we can no longer subsidize the cost of serving higher areas.

So, in the higher-cost areas, a company like Qwest would need the same type of incentive as a rural company serving the same higher-cost area, which is why we've urged the FCC to look at the possibility of merging the different high-cost funds it has today into one, and then provide those funds, as a block grant, to the states who are close to the ground and can make the judgments based on their actual knowledge of who is served, and let them administer it under some Federal guidelines which would be consistent across the country.

The CHAIRMAN. OK. Last question, for you, Mark and Mr. Squires. We have real problems in rural areas on this intercarrier compensation. Now, you've heard Mr. Baum say the Task Force is going to have this meeting. Do you think that the rural areas—in terms of intercarrier compensation, are so large that we should not let the industry, on a national basis, solve it? Or do you think we

should have to have a rural, sort of, caucus look at this problem of intercarrier compensation in rural areas?

Mr. JOHNSON. Senator, I think—based on our unique market structure, I believe we need to have a special look at how a proposed industrywide solution would affect Alaska. Absent that, I have always been afraid that we would be disadvantaged substantially. So, that's my short answer.

The CHAIRMAN. Mr. Squires?

Mr. SQUIRES. Mr. Chairman, it is complicated, as you indicated, but I do believe that the industry, in working with the FCC, can fashion a solution to this problem. With that said, there are rural issues that have to be addressed within that solution. I believe the industry and the FCC can address those, either through the use of a joint board or other rural caucus. I think we're close enough to a solution that the industry and the FCC can tackle the problem.

The CHAIRMAN. Mr. Baum, my comment to—the mega-companies, working together, have this intercarrier compensation problem, but it's nothing like it is when you get into rural areas. So, I hope that you focus on the difference in the rural areas, in terms of what you're doing here this week.

Mr. BAUM. Mr. Chairman, it's a key requirement, for the big carriers to include and address the interests that are represented by the Rural Alliance, which is the group representing rural carriers. So, right now I think rural carriers would be very happy with the way the plan is going. It will be friendly toward rural carriers, in keeping them in a position where they can continue to provide the service they have been to their consumers. So, we'd be very cognizant of that, and realize that that's important to the Commerce Committee and yourself.

The CHAIRMAN. Well, thank you all very much. I think this is a key issue for this telecom bill. If we can get an agreement on Universal Service, we can get a bill. But there is still a lot of opposition in Universal Service, per se, in the Congress. I hope you all keep that in mind.

Thank you for coming. I appreciate your courtesy.

[Whereupon, at 12:10 p.m., the hearing was adjourned.]

A P P E N D I X

PREPARED STATEMENT OF HON. DANIEL K. INOUYE, U.S. SENATOR FROM HAWAII

As we think about the challenges facing rural America, and in particular those faced on remote tribal lands, we should remember that it was not all that long ago when large sections of the country did not have electricity let alone phone service. As a nation, we determined that some services were so essential not only to a community's well-being, but to that of the Nation, that they must be deployed everywhere, even if the undertaking required government support.

Financial realities often prohibit the private investment necessary to build communications systems in remote parts of our Nation. Indeed, these concerns prompted members of this Committee to draft section 254 of the 1996 Telecommunications Act, which explicitly created the Universal Service Fund. I am, and will continue to be, a strong supporter of the Universal Service Fund. As our Nation continues to become more dependent upon the instantaneous exchange of information, Universal Service will continue to help provide all Americans with access to high-speed communications and all its benefits.

To reach that future, however, we need to consider reforms that will strengthen current support mechanisms, rationalize our current system of intercarrier payments, and eliminate opportunities for arbitrage. We are fortunate today to have two state communications regulators among the witnesses today to advise us on these issues.

Native Americans and tribal communities face particular difficulty accessing advanced communications services. Today's hearing also allows us to review their situation in particular, and it also allows us to reaffirm the trust relationship between the United States government and tribal communities. Toward that end, I am particularly pleased, Mr. Chairman, that the General Accounting Office has been invited to share the results of their recent report on the challenges faced by Native Americans in providing communications services on tribal lands.

In response to this report, I am introducing legislation today along with my colleagues Senators Dorgan, Burns, and McCain to clarify the eligibility of certain tribal libraries for e-rate funds. The legislation also addresses the lack of reliable data regarding Internet subscribership in sparsely populated areas of the country, including data for residents on tribal lands. It is my hope that progress on this legislation, along with S. 585, the Native American Connectivity Act currently pending before the Senate Indian Affairs Committee, will help us meet our trust responsibilities.

Finally, today's hearing gives us the opportunity to consider how innovative, low-cost technologies, such as those used by wireless Internet service providers or "WISPs", are attempting to bridge the digital divide in rural America. With that Mr. Chairman, I thank you for holding this hearing and look forward to the witnesses' testimony.

PREPARED STATEMENT OF HON. GORDON H. SMITH, U.S. SENATOR FROM OREGON

Thank you, Chairman Stevens and Co-Chairman Inouye, for convening this hearing on rural telecommunications.

We have talked quite a bit about the need for telecommunications reform this Congress. Last week, we held two hearings on the crisis facing the Universal Service system, a program designed largely to bring advanced telecommunications services to rural areas.

We have also held hearings on the need for video franchise reforms that will promote competition and broadband deployment. The theme of these and other telecommunications hearings this session has been the need for reform *now*. Not in 2007. Not in 2008. Now.

The Commerce Committee has scheduled a mark-up on March 16th. I urge the Committee to add telecommunications reform bills to the agenda and to schedule additional mark-ups on telecommunications bills immediately following the St. Pat-

rick's Day recess. We must move bills out of the Committee in a matter of weeks if the Senate is to take up telecommunications reform before the end of our short legislative year.

I would like to make one other point regarding rural telecommunications and our elderly population. Many older Americans face barriers to interacting with their communities and keeping in touch with loved ones because they do not have access to affordable telecommunication services. As Chairman of the Special Committee on Aging, I am especially interested in ensuring that our Nation's seniors living in rural areas are able to maintain their independence and experience the benefits provided through telecommunications. The Universal Service Fund provides an important service for low income elderly citizens, allowing them to perform a wide range of communications, from contacting police and medical professionals in times of emergency, to talking with friends and family members. The Universal Service Fund is an essential program for this segment of our population who otherwise would become increasingly isolated from their communities and families.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. TED STEVENS TO HON. THOMAS DORR

Question. Mr. Dorr, the RUS Rural Broadband Grants and Loans programs are a key activity geared to extending broadband technology and services to rural and underserved America. Even though these programs are touted as technology neutral, it is my understanding that no satellite broadband technology or service provider has been afforded access to either the grants or the loans administered under RUS for rural broadband deployment. Given that satellite technology can reach all of rural America, what changes are needed in the scope of these RUS programs so that satellite broadband technology can be treated on a level playing field for RUS Grants and Loans programs as other technologies?

Specifically, what needs to be changed so that customer-owned equipment, such as satellite broadband transceivers and modems, can be financed under the RUS Rural Broadband Grants and Loans programs?

Answer. Mr. Chairman, thank you for your very good question regarding the use of satellite technology in providing broadband service. Rural Development has not received an application for satellite technology to be used to deploy broadband service, either in Alaska or any where else.

As you point out in your question, the Broadband Program is technology neutral by statute. We have, in fact, had meetings with three different satellite companies that provide broadband service.

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