Thank you, and good evening everyone. I feel at home with an audience interested in the issues affecting rural America because U S WEST is invested in so much of it.

For starters, we have the largest geographic area of any of the Baby Bells, most of it rural. Our territory extends from the Pacific Ocean to the Midwest and from Canada to Mexico—an area the size of India. Yet, we’re among the smallest of the Baby Bells in the number of lines, and we serve the most sparsely populated territory.

The density of households in our territory is only 20 percent that of the Bell average. The average length of the wires from our switching office to a customer’s home is nearly twice that of telephone companies in general. Less than half of our revenues come from our top five metropolitan areas.

So rural America is important to my company and to my customers. It’s also important to you, because of your orientation to rural issues. So we share common interests.

Tonight I want to share a few thoughts with you on the issue of telecommunications equity for rural America. As the largest rural telephone company in this country, this is a dollars and cents issue for me. For people who live and work in rural America, whether rural America has a modern telecommunications infrastructure is both a quality of life and economic development issue.

Specifically, I’ll talk about technology and infrastructure, how those twin forces have shaped our society, and how they continue to do so in ways that may not be so obvious as in the past. And, of course, I want to talk about why the technology infrastructure is of special interest and benefit to rural America in terms of economic development, and what we can and should do to ensure that rural Americans reap those benefits.

Technology as infrastructure

Technology and infrastructure have been fundamental to creating competitive advantages for cities, states, and nations since long before the words “technology and infrastructure” even entered the language.

Just as a process for making steel was the foundation of Sparta’s power, and just as roads helped the Romans to consolidate their power, telecommunications is the infrastructure that is fueling a new, digital economy today.

Information technology industries are now growing at a rate of about 15 percent per year,
more than double the rate of the rest of the economy. From the mid- to late 1990s, the information and telecommunications industries have been responsible for more than one-quarter of all real economic growth.

Information technology prices, adjusted for quality and performance improvements, have been falling, while prices in the rest of the economy have been rising. In fact, declining information technology prices lowered our overall inflation rate by one full percentage point in 1996 and 1997.

So in just a few short years, we have seen the shift from an economy that depended on an infrastructure of canals, seaports, and highways to a new economy. This economy depends largely on airports, intermodal cargo terminals, and, increasingly, telecommunications networks.

Historically, many believed that infrastructure referred only to streets and bridges and water systems. Today and tomorrow, we must add telecommunication and the underlying technology to allow for high-speed data transmission.

Deploying these technologies is a major challenge for nations that want to be competitive in the 21st century. For rural Americans, there is another critical reason why the deployment of telecommunications technology is as important—or more important—than the maintenance and expansion of roads, water systems, and the like.

Infrastructure bypasses rural America

Here in Denver in the 19th century, people realized that to be bypassed by the railroad was a survival issue. The railroad was critical to Denver’s infrastructure. Today, people everywhere in the United States are realizing that to be bypassed by high-speed data networks could be fatal. Many are realizing that they are indeed being bypassed.

Telecommunications providers are building networks on top of each other in urban areas, but when it comes to rural America, they are not building at all. In downtown Denver, customers can choose from many providers. In Alamosa, their idea of high-speed data is the Federal Express truck showing up before noon, or a 28.8 modem that can download *War and Peace* in several hours.

Population growth

This comes at a time when parts of rural America are experiencing substantial growth, the fastest growth rate in more than 20 years, according to demographers. Rural America has seen more growth in the first six years of the 1990s than it saw in the entire decade of the 1980s. Some characterize this migration as a silent revolution.

Rural America comprises 75 percent of the counties in the United States and includes about 54 million persons, a gain of nearly 3 million since 1990. Most of this growth is not because births exceed deaths, but from the net immigration of adults.

This is an immigration of freelance professionals who are leaving life in large cities.

They are leaving their positions in the nine-to-five world to move back to small-town America or to adjacent rural areas. These “Lone Eagles” value quality of life over congestion, and they have the wherewithal to do something about it.

The center for the New West, which first discovered Lone Eagles, says there are as many as 10 million Lone Eagles. They are writers, analysts, brokers, consultants, manufacturers’ reps,
and others who live by their brains and connect with the rest of the world by using faxes and modems. They are people like attorney Gerry Spence, economist Nina Cornell, novelist James Crumley, and author John Naisbett.

Many Lone Eagles earn $150,000 per year or more. They don’t require tax abatements or public subsidies to lure them away from the cities. They pay their own way, bring in new wealth from outside the community, and sink their roots in their new homes, where many greatly enrich the fabric of community life.

Lone Eagles may represent America’s most important lifestyle change since the rise of the two-wage-earner family of the 1970s. Lone Eagles are able to live where they choose, even in rural America, because new telecommunications technology is reducing the tyranny of distance. Telecommunications technology makes it possible for knowledge workers to live almost anywhere yet, by virtual means, to be everywhere. This is a “first” in the history of civilization.

Just as the railroads did in the 1800s, technology has enabled the emergence of this new group of people who are advancing the new rural renaissance. It is the telecommunications infrastructure that gives them access to the Internet.

**Internet use**

The spread of the Internet represents the fastest saturation of any communications or electronics technology in history. The Internet reached 50 million homes within five years of its commercial introduction. In contrast, network television took 13 years, cable television took 10, and radio was not in 50 million homes until its thirty-eighth birthday.

I’ll demonstrate how fast use of the Internet has grown with your help. So let’s take a quick poll. Raise your hands if you used the Internet in 1994. Now raise your hands if you used the Internet or an Intranet today. See what I mean?

Internet use has grown from about 3 million people mostly in the United States in 1994, to more than 100 million people today worldwide. More than 50 million are in the United States.

**Internet’s dependence on telephone lines**

These staggering numbers tell only half the story. The Internet in and of itself is not the be-all and end-all. It must have the necessary telecommunications infrastructure before it can fully deliver such promising services as electronic commerce, distance learning, and telemedicine to rural areas.

Without these high-speed networks, rural growth could stop.

So we need to ask ourselves: Who will provide that infrastructure? Government? Private industry? And how are we doing?

While we think about the answers to those questions, remember this: Nearly all activity on the Internet begins and ends on a telephone line. Even satellite-based Internet access typically uses a telephone line to upload data.

Over the telephone line, information becomes digital streams of zeros and ones, enabling users to send X rays or text from books or maps or video clips from here to there. Without what we in the business call high-speed broadband data transmission, the Internet is like a fully loaded Mercedes with a lawnmower engine. It’s why many people call the World Wide Web the “world wide wait.”

Speed is the key. It takes nearly an hour and a
half to download a four-minute TV segment over copper wire. It takes less than a minute with a technology called the Digital Subscriber Line (DSL).

DSL supercharges existing copper telephone lines to deliver data at 256,000 bits per second—and that’s the low end. At that speed, the entire experience of using the Internet is transformed. When you can click through your computer screens as quickly as you change TV channels, the Web takes on an entirely new character. You can access video clips from the Library of Congress, or view new surgical techniques from the veterinary school at Colorado State, or learn a second language from a teacher in a distant state.

The exciting thing about a technology like DSL is that the infrastructure is already there. There is a pair of copper wires in 94 percent of the houses and farms and businesses in America—more than $60 billion dollars’ worth of installed lines.

Depending on the distance from a central call switching office, DSL may allow a telecommunications provider to use one copper telephone wire for high-speed data transmission and, at the same time, for the plain old telephone call.

Telecommunications development

Looking forward, there will be new developments in photonics, wireline, and wireless technology. We’ll actively pursue those as well. At U S WEST, our future depends on these sorts of technologies, to the tune of investing more than $2 billion each year, every year.

We are building an Internet Protocol network designed for data that will also carry voice, rather than a voice network that also carries data. We’re investing in fiber optics, frame relay facilities, and other needed network technology. This will result in a robust network for our customers, whether they rely on voice communication, data transmission, or both.

As the personal computer’s use as a communications device has grown, people are beginning to understand that telecommunications growth requires massive investments in the communications infrastructure, in such facilities as the cell and frame relay networks I mentioned a few minutes ago.

These investments are needed to enable the Internet to work at the speeds necessary for applications such as full-motion video. These are essential for videoconferencing, telemedicine, distance learning, and other applications that depend on high-speed transport.

Rural exclusion

So the good news is that rural America has the most to gain from telecommunications technology. The bad news is that there are government policies in place to keep that from happening. There is ample and startling evidence of the problem.

Bill Lilley’s firm, InContext, has done a lot of serious, scholarly work in looking at how unregulated telecommunications companies have rolled out their facilities in search of customers. He has also done work for the Federal Reserve System on quantifying the varying impact of state tax structures across regions. So I’m sure many of you are familiar with his work.

His findings tell a story about a huge gap in equity for rural America. They paint a picture of exclusion. Exclusion of small business. Exclusion of small residential customers. Exclusion of minorities. Exclusion of rural communities. Exclusion of everything except high-end, urban, densely concentrated business
customers. In fact, 17 of the 27 long-distance calling areas in U S WEST’s territory are untouched by high-speed backbone networks.

**Government regulations**

Government restrictions, now 15 years old, that kept companies like U S WEST from entering the long-distance telephone market now stand as barriers to keeping us from entering the data transmission market. That means that if you are a manufacturer in Montana trying to do business over the Internet with a customer in Wyoming, U S WEST has to hand off your data traffic to our “authorized” long-distance provider.

Let me give you an example. Farmington, New Mexico, is only 50 miles from Durango, Colorado, where Joe Brown, an entrepreneur from Indiana, recently planned to start a service bureau, or outsourcing center, to serve major companies in other states via computers and telephone lines.

But Joe needs dependable, high-speed bandwidth telecommunications. His options are limited by “old economy” regulations that limit telecommunications services to Durango. The result is that he couldn’t even consider starting his service. Here’s why. Both Farmington and Durango are at the end of the line for their respective telephone companies—the New Mexico and Colorado units of U S WEST.

So while we could provide the connections Joe needs, we cannot. Because of regulations dating back to the breakup of AT&T, the federal government will not let units of U S WEST—or any other local telephone companies—transport voice or data across state lines. Government regulations also prevent long-distance service within a state if the communication crosses a LATA, which stands for Local Access Transport Area. These are artificial boundaries created by the government that local exchange carriers cannot cross.

The result is that a telephone call from Durango to Farmington would begin with U S WEST and be transported to Grand Junction, where it would be handed off to a long-distance carrier at the U S WEST switch. It would then go to Albuquerque, where it would be handed back to U S WEST and transported to Farmington. A 50-mile trip is now about 1,000 miles—and without the crucial security of a backup system that many communities have.

Unfortunately, these government restrictions, created a decade before the World Wide Web, make it impossible for telephone companies to combine smaller markets that straddle state lines or cross LATA boundaries. If these smaller markets could be treated as a unit, they could support the capital investment required to build and maintain high-speed broadband lines to smaller towns like Durango and Farmington. Instead, we have a government-induced economic development fiasco. And Joe is out of luck.

And, of course, others are out of luck also. If you are a hospital or police department or a university or a travel agency or any of the thousands of other businesses that need high-speed data access, your data must be “backhauled” by a slow line to a major city with a network point of presence. It moves much slower and costs you much more to move than it would if you lived in a big city.

**The regulatory framework**

What is the telecommunications industry doing about this?

The various carriers who can build the infrastructure for rural America either lack the incentive, the resources, or—in the case of my
company and every other Regional Bell Operating Company (RBOC)—the legal authority to do so.

Because I’ve already invested in rural America, my motivation is different. But I can’t continue to invest without the regulatory incentive to do so. Providing the necessary Internet backbone requires a significant capital commitment. To make this new investment possible and efficient, we’ve asked the FCC for the ability to carry data traffic—and only data traffic—across local calling area boundaries.

The FCC’s answer is to let the former Bell companies deliver advanced services, but only through a separate subsidiary. The FCC once ordered AT&T to move its telephone equipment business into a separate subsidiary. Only after that idea failed did the FCC lift its restrictions.

Today, the FCC is applying that same discredited model to the new entrants to the data market—the telephone companies. We can provide interLATA data services, but under terms and conditions that don’t apply to our competitors.

If we’re required to establish a separate subsidiary for data—to build a completely new and fully separated organization—I lose any incentive to provide data services to rural and poor areas.

We must have an integrated approach where U S WEST can fully utilize its network and marketing resources. Only then will all customers have access to advanced telecommunications services in a reasonable time frame. The rules mean that companies like U S WEST, which have the facilities in place, and in place right now, can’t move your data.

Companies that are allowed to do so, such as AT&T and Sprint, don’t have the facilities. And I will guarantee you that they will not build them. This is the telecommunications version of redlining.

They will not build and have not built in any areas other than those with high concentrations of high-end business customers. That includes rural America, particularly in the West, large portions of suburban America, and areas with high concentrations of minority Americans.

High-speed access discrepancies

Think about this. Eighty-two percent of urban residents have access to the Internet. In rural areas, the figure plummets to 31 percent. The phenomenon is so prevalent that it has its own name, and that name is The Digital Divide. The vast majority of rural Americans face the very real potential of finding themselves on the wrong side of the Digital Divide, and of being deprived of essential telecommunications infrastructure.

Without high-speed data services, rural America will fail to retain existing businesses and attract new businesses and new investment. Without new investment, rural America will fail to achieve access to high-speed data. Rural America is in a Catch 22.

High-speed data networks bypass huge sections of the country, leaving tens of millions of Americans behind. In the U S WEST territory alone, four states—Montana, North Dakota, South Dakota, and Idaho—have no high-speed on-ramps at all. Wasn’t one objective of the Telecom Act to provide fast Internet access for everyone?

Didn’t we want Internet access sooner not later? Cheaper, not more costly? Shaped by markets, not mandate? Governed by competition, not competitors?
That objective has not been achieved. It has not been achieved because horse-and-buggy-era restrictions are an obstacle to any RBOC’s investment in new digital infrastructure. That means the one player most able to bring that access to rural America is the one player excluded from doing so.

**U S West would improve access**

Speaking for U S WEST, I will tell you tonight that we could begin the investments to tailor services such as DSL to the needs of our entire 14-state region. There are many—though not all—areas where we could build high-speed on-ramps to the Internet within the next year.

Remember that line from the movie *Field of Dreams*—if you build it, they will come? Well, tonight we can put a different twist on that. If we build it, they will stay. More specifically, if I am allowed to come to your areas, I will build it.

I will build the facilities needed to put rural America on a telecommunications par with urban America.

We can give rural hospitals access to telemedicine. We can give rural schools access to distance learning. We can give police departments access to national crime databases.

We can give rural businesses access to e-commerce, which the Commerce Department estimates will amount to more than $300 billion within the next three years. That means the large numbers moving to small towns and rural areas will be able to stay, to prosper and to bring new wealth and opportunities to rural America.

We can’t do it alone. I appeal tonight to your interests. I strongly encourage you to work through your trade associations and your elected representatives to urge the FCC to remove the legal and regulatory barriers that threaten to exclude rural America from the benefits and opportunities of the digital age.

I urge you to find other redlined groups who are excluded and to create a coalition for change and revitalization. You must organize and mobilize.

Just as our forefathers built canals, highways, and railroads, our continued prosperity requires the broadest possible access to modern telecommunications technologies and services.

And just as the Romans thrived through the unheard-of access and speed that their roads meant for them, so can America thrive through a different kind of infrastructure. It must be an infrastructure dedicated to knowledge instead of dominance, inclusiveness instead of exclusivity, progress instead of protection.

We have the technology to do so. Now we must demonstrate the will.