Appendix A
Letters and Documents of Interest

1st-Mile Institute Cover Letter

1st-Mile Institute

The 1st-Mile Institute has been established to provide broadband networked-society research, education and demonstration project services, with a dedicated focus on economic quality-of-life enhancing issues and initiatives of the state, the communities and the people of New Mexico.

The 1st-Mile Institute will serve as 'think and do tank' and 'living laboratory' for research; consulting and contracted services; education; public policy; conferences and workshops; publishing, media and online content creation; tele-community assistance; creative economy demonstration projects; community networking; and 'open' networked society building.

The 1st-Mile Institute objectives include:
- To promote local economy-generating 'open access' broadband systems and services.
- To be a trusted, politically neutral organization, advocating for effective public-private partnership opportunities and multi-sector benefits from networked society development.
- To integrate state and local 'networked information economy' within whole-systems (water, energy, food, transportation, education, civic and community development) ecological understandings and practices.

The 1st-Mile Institute is currently being established.   A New Mexico Board of Directors, and an international Advisory Board are being formed.   While formalizing as a 501(c)(3) non-profit organization, the Institute is operating as a sponsored project of the nonprofit .org, Ars Publica.

The 1st-Mile Institute is supported in part by a 2008 grant from the NM McCune Foundation.

The 1st-Mile Institute: Projects and Initiatives (current and proposed; 2007-2009)
- 1st-Mile New Mexico Initiative: web site and email list   www.1st-mile.com
  List subscription and archive link are at: www2.dcn.org/mailman/listinfo/1st-mile-nm
- A "New Mexico Integrated Strategic Broadband Plan" (advocacy and stewardship)
  o   NM Broadband Forums, Workshops and Publications, 2008-09-onward
- Broadband Networking and Economic Assistance for NM Communities
  o   An 'Open Broadband Economic Study', being prepared with the UNM BBER.
- 1st-Mile NM Broadband Economics Conference: "Info/Eco", 2009
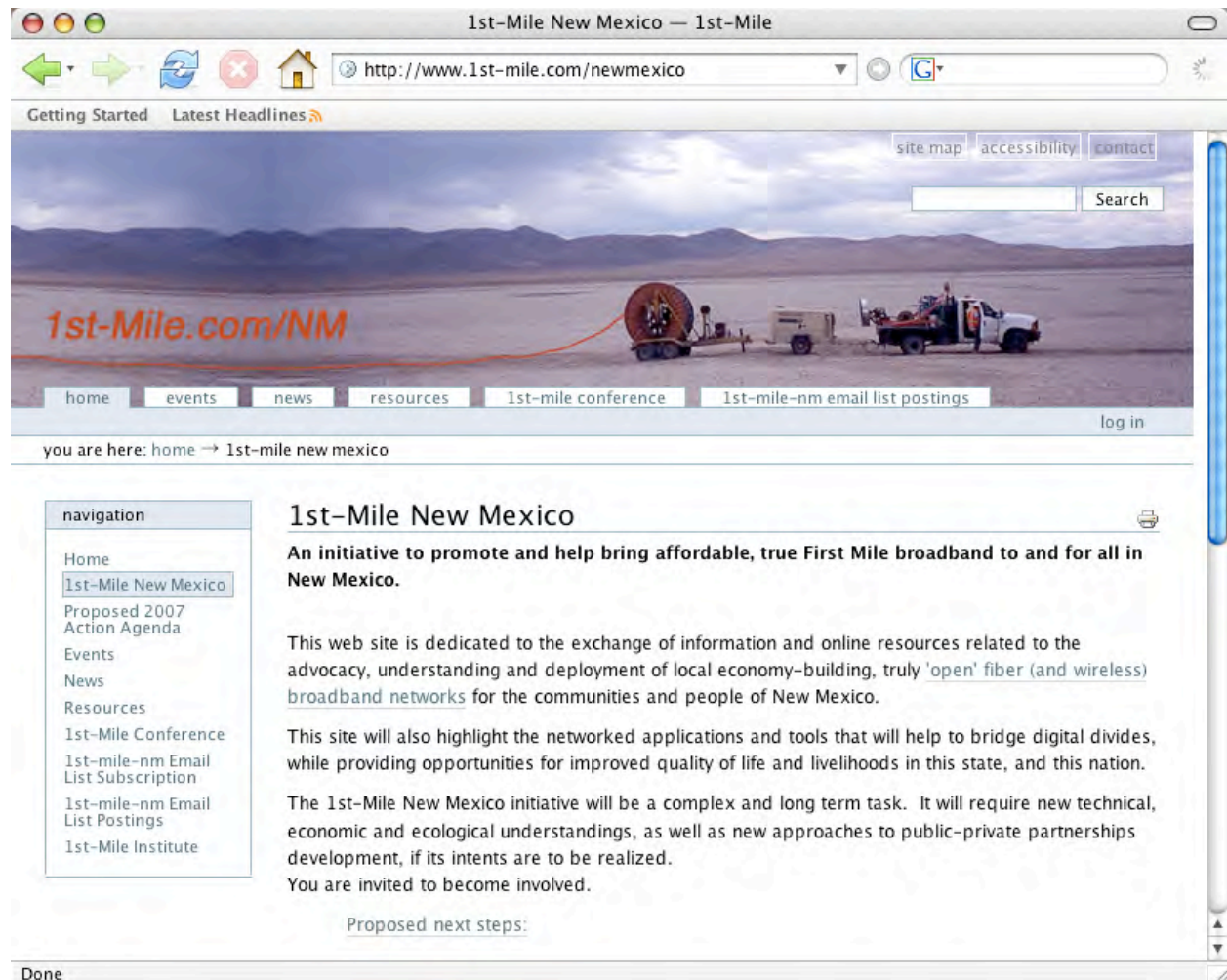
Richard Lowenberg, Executive Director   rl@1st-mile.com
1st-Mile Institute, P.O. Box 8001, Santa Fe, NM 87504   505-989-9110   www.1st-mile.com

Communities and people are the 1st mile, not the last mile; generating networked economic value, locally.

1st-Mile Web Screenshot

Broadband Census Report on New Mexico

BroadbandCensus-NM

http://broadbandcensus.com/blog/?p=549

New Mexico Infrastructure Report Fails to Incorporate Broadband Access

Broadband Census New Mexico
By Drew Bennett, Special Correspondent, BroadbandCensus.com

This is the tenth of a series of articles surveying the state of broadband, and broadband data, within each of the United States. Among the next profiles: Arizona, Nevada and Utah.

August 29 – As with other states seeking to promote the availability of high-speed internet access in a broadband-centered world, New Mexico is struggling just to keep up.

Despite boasting one of the world's premier centers for science and research at Los Alamos National Laboratory and experiencing a recent population boom, New Mexico remains far behind the rest of the country in broadband and digital deployment. According to a report by the Kauffman Foundation and the Information Technology and Innovation Foundation, the state ranks 46th in percentage of internet users, 49th in e-government, and 36th in broadband telecommunications.

New Mexico's deficit in broadband infrastructure is particularly glaring. According to Federal Communications Commission statistics, only 78% of New Mexicans have access to digital subscriber line (DSL) service and only 77% have access to cable modem service – well below the national averages of 82% and 96%, respectively.

And the quality of service received when broadband connectivity is available is 15% slower than the national average, according to the Communications Workers of America's Speed Matters web site.

In capital Santa Fe, policy-makers are beginning to focus on the state broadband situation. In 2006, Governor Bill Richardson appointed Thomas Bowles as his science and technology adviser, stating that "New Mexico is becoming a national leader in the high tech field and Tom Bowles will help further this progress."

Sources close to Bowles say that the technology advisor seeks to drive innovation through technology, and that he understands the importance of improving broadband infrastructure as a part of this agenda, yet two years later the state has yet to produce a strategy for improving broadband connectivity.

"New Mexico has an opportunity to set national examples when it comes to broadband networks," said Richard Lowenberg, a broadband expert and state consultant. Lowenberg is a long-time advocate for high-speed, open fiber networks who has worked with Japanese broadband officials. Japanese broadband has been noted for offering particularly high speeds at low costs.

There are multiple initiatives throughout New Mexico to develop municipal broadband wireless networks, community fiber networks, and funding through Department of Agriculture and its Rural Utility Service. These grants deliver broadband to rural areas and to Navajo and Pueblo reservations. Lowenberg believes that a comprehensive plan that integrates and builds on these efforts is what is now needed.

"The key is an economic model that aggregates demand, integrates systems like energy systems, and seeks out applications that help pay for these networks so that they can reach everybody," Lowenberg said.

Besides telecommunications carriers, energy utilities, railroads, highway authorities and backbone data infrastructure providers should all be involved in a state broadband policy, said Lowenberg. Any broadband mapping project would need to consider all possible infrastructure that could be utilized in a state-wide effort to expand and enhance broadband services.

Lowenberg would like to see New Mexico "work towards a comprehensive infrastructure that gets us to where we want to be in 10 years."

Governor Richardson has developed a plan, dubbed Invest New Mexico, to offer solutions to New Mexico's "perfect storm of infrastructure problems." However, the 55-page Invest New Mexico report fails to consider and integrate improvements in broadband infrastructure as part of the state-wide plan.

The Invest New Mexico initiative asks "what infrastructure can we invest in to expand our economy?" Yet the answers that it poses have nothing to do with the potential that many others see in deploying faster and better broadband infrastructure.

NM IT & Innovation Statistics

New Mexico: Information Technology and Innovation Economy

(From the ITIF 2008 New Economy Statistics)

INDICATOR	RANK	SCORE
• **Overall**	33	53.7
KNOWLEDGE JOBS	37	6.7
• **IT Professionals Score**	34	0.91%

Employment in IT occupations in non-IT industries as a Share of total jobs.

• **Workforce Education**	26	38.6

A weighted measure of the educational attainment (advanced degrees, bachelor's degrees, associate's degrees, or some college coursework) of the workforce.

DIGITAL ECONOMY	46	6.5
• **Online Population**	46	51.8%

Internet users as a share of the population.

• **Technology In Schools**	18	5.41

A weighted measure of three factors measuring computer and Internet use in schools.

• **E-Government**	49	3.41

A measure of the utilization of digital technologies in state governments.

• **Broadband Telecommunications**	36	3.69

A weighted measure of the deployment of residential and business broadband lines.

INNOVATION CAPACITY	11	11.0
• **High-Tech Jobs**	8	4.5%

Jobs in electronics manufacturing, software and computer-related services, telecommunications, and biomedical industries as a share of total employment.

• **Scientists and Engineers**	2	0.94%

Scientists and engineers as a percentage of the workforce.

• **Industry Investment in R&D**	37	1.29%

Industry-performed research and development as a percentage of total worker earnings.

• **Venture Capital**	16	0.19%

Venture capital invested as a share of worker earnings.

NM Library Support Letter

NEW MEXICO [logo] STATE LIBRARY

August 18, 2008

Richard Lowenberg
1st-Mile Institute
P.O. Box 8001
Santa Fe, NM 87504

Dear Richard,

Thank you for sending us the information on the New Mexico Integrated
Strategic Broadband Initiative. We are very interested in bringing
public libraries in New Mexico to the table as you, and others, work to
develop an integrated strategic plan to determine how we can meet the
needs for high-sped affordable broadband in the state.

As you know, libraries play an increasingly important role to all
citizens of the state who need Internet access. The Internet permeates
many aspects of daily life, and libraries make it possible for all
community members to utilize it, regardless of wealth or geographic
location. This includes library patrons who seek online government
information, are taking online classes, are submitting online job
applications or are seeking information using online databases like
Magazines Online.

The majority of New Mexico's public libraries currently have DSL for
connectivity. This is woefully slow for applications like library-to-
library resource sharing, podcasting, or social networking sites as

well as for several users being online at the same time. We estimate
that small to medium public libraries should have a minimum of 1.5
mbps. A well-developed network is a resource that can be an indicator
of the state's technological advancement and used to attract new jobs
and increase economic development in all New Mexico towns.

We applaud your, and the 1st Mile Institute's, efforts to create
strategic partnerships and mapping to improve broadband infrastructure
and services for all in the state.

Susan Oberlander, Ph.D.
State Librarian
New Mexico State Library
1209 Camino Carlos Rey
Santa Fe, NM 87507
505 476-9762

NM Libraries Report Card

New Mexico Libraries 2001-2007

o Visits to New Mexico libraries increased 28% from 5,514,148 in 2001 to 7,068,040 in 2007.

o The number of items library users checked out grew 20% from 7,715,846 in 2001 to 9,318,518 in 2007.

o The number of public internet computers increased 120% from 587 in 2001 to 1,292 in 2007 and the number of users of online resources grew 87% from 908,596 in 2001 to 1,705,020 in 2002

o The number of paid employees in New Mexico libraries only increased 13% from 610 in 2001 to 693 in 2007

o Local government income grew 37.7% from $14.32 per capita in 2001 to $19.72 per capita in 2007.

o Income from the State Grants-in-Aid program decreased 37.60% from an average of $5,147.06 per library in 2001 to $3,211.76 in 2007.

o New Mexico libraries are proving more services to more patrons, but the number of paid employees and funding have not kept pace with the demands on library services.

New Mexico Libraries 2001-2007

New Mexico State Library   7/30/2008
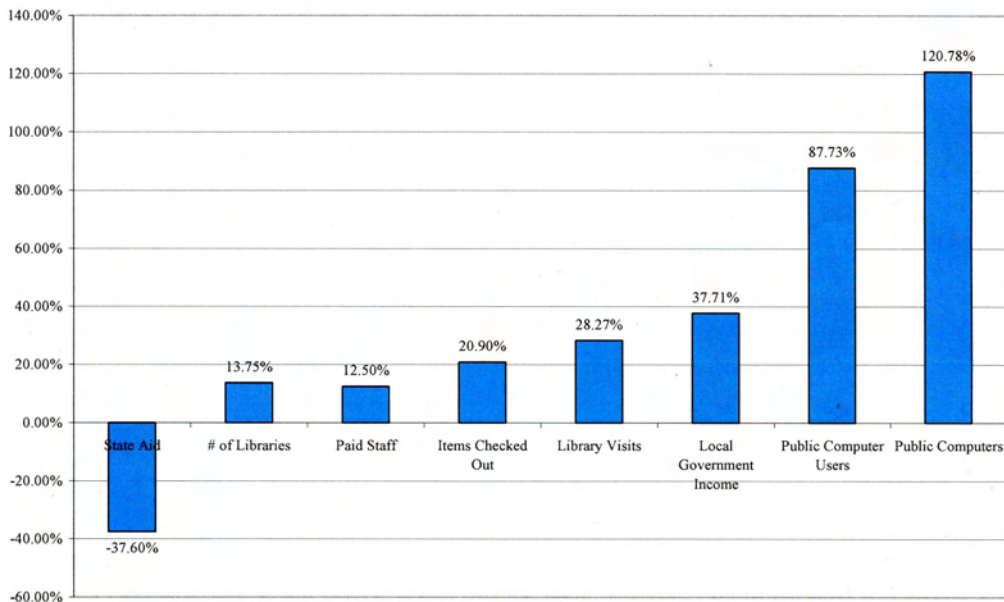
Library Spending Comparisons

State Aid to Libraries – How Does New Mexico Compare?

How do we compare to other states of similar population (under 3M)?

There are 21 states that have a population under 3M and fourteen of them offer state aid to libraries: Alaska, Arkansas, Delaware, Kansas, Iowa, Mississippi, Nebraska, Nevada, New Mexico, North Dakota, Rhode Island, Utah and West Virginia. New Mexico ranks 7th in population but 13th in state aid per capita, 12th in total amount of state aid, and 11th in amount of state aid per library.

Total amount paid by 14 states annually:

Average = $2,674,485
Median = $838,977
New Mexico = $273,000

Amount per library:

Average = $23,463
Median = $6,220
New Mexico = $2,202

Per capita amount (2005 census estimates):

Average = $1.67
Median = $0.83
New Mexico = $0.14

How much would it take to raise New Mexico state aid to match the other 13 states?

Based on 2005 censure figure for New Mexico of 1,954,599 people, we would need:

Average = $3,264,180 to reach $1.67 per capita
Median = $1,622,317 to reach $0.83 per capita

For further information, please contact:

Susan Oberlander
NM State Librarian
505 476-9762
Susan.oberlander@state.nm.us

NM PRC Letter

NM PRC Position on broadband initiatives in the State of New Mexico

This New Mexico Public Regulation Commission strongly favors the expansion of broadband availability throughout urban and rural areas of New Mexico. The Commission believes that broadband availability has progressed from being a luxury or convenience to the point that it is a necessity: access to the internet and the use of internet-bound applications are becoming vital elements of the social and economic fabric of society. The availability of broadband is a primary driver to attract business and population, and those communities that cannot supply adequate bandwidth to satisfy the wants and needs of migrating businesses and residents are likely to be bypassed.

Broadband technologies such as fiber, DSL and copper, cable, and wireless or wi-fi vary in terms of performance, cost, and reliability, and individual consumers may differ in the trade-offs they prefer. However, as a general rule, we have observed that most consumers these days increasing prefer access to larger and larger amounts of data through the downloading and use of more data intensive applications.

The Commission believes that more aggressive steps need to be taken to put more of New Mexico's communities in the category of the "haves" with regard to ubiquitous broadband availability; extend broadband to schools, libraries, and other community institutions throughout the state, and to bring down broadband costs to residential, commercial, and government users. Given the barriers posed by our state's geography and demographics, government initiatives may be needed to "prime the pump." That being said, the New Mexico Commission has not at this time take a position with regard to any particular form of ownership models for the deployment of broadband services in communities in New Mexico.

The NMPRC is glad to provide technical support to the 1st-Mile NM Broadband Initiative. Should specific proposals be generated by the 1st-Mile Initiative, that proposal would be brought before the whole Commission for consideration for support.

Jason Marks, NMPRC Commissioner   Mike Ripperger, PRC Telecommunications Bureau Chief

March 26, 2008   (email transcription)

NCNMEDD REDI Letter

From: "Monica Abeita" <m_abeita@msn.com>
Subject: **information on REDI**
Date: August 27, 2008 10:32:04 AM MDT
To: "'Richard Lowenberg'" <lowenberg@designnine.com>
Cc: <ed@rdcnm.org>
▶ 1 Attachment, 127 KB

Hi Richard,

I'm attaching some background information on REDI, and you can also visit our website at www.nnmredi.org for more detailed information. Here are the things I think are most important for you to know in for your report:

REDI (NNM Regional Economic Development Initiative) believes that regional broadband is our top priority project for the next 1-5 years for the following reasons:

- We have identified four industry clusters that we will be focusing on, three of which are heavily dependent on broadband. Our clusters are renewable energy/green industry, technology, entertainment (film + music) and value-added agriculture. Our economic development efforts simply will not be successful unless and until we address the gaps in broadband in the region.

- As our workforce changes, economic development strategies are moving from attracting companies to attracting free agents, many of whom work from home. NNM has great potential to become popular with free agents, but we will need to have broadband to the home in order to allow locals to develop free agent businesses, and to attract free agents from elsewhere.

Your report and a potential pilot project are opportune because we are currently developing an implementation strategy which proposes that a public-private partnership be formed around the four industry clusters. Local governments and private sector entities would be able to buy into a membership structure. Activities under this effort would include business retention, expansion and attraction for the four clusters, as well as identification and implementation of **strategic projects** needed to support the four clusters. Clearly, a **regional broadband project** is at the top of our list. We will be briefing the regional partners in REDI (Los Alamos County, City of Santa Fe, Santa Fe County, Rio Arriba County, City of Espanola, Town of Taos and Taos County) on this implementation strategy on September 29, and hope to be able to use your report to make some recommendations.

Aside from that, I think you have all the information from Gus' telecommunications meeting.

Thank you and I look forward to seeing your report,

Monica Abeita
REDI Project Manager
Regional Development Corporation
505-241-9196

FAQs.doc (127 KB)

Santa Fe Regional Telecom Coalition Letter

Richard Lowenberg
1st-Mile Institute
PO Box 8001, Santa Fe, NM 87504

August 26, 2008

RE: Santa Fe Regional Telecommunication Coalition

Dear Mr. Lowenberg;

The Santa Fe Regional Telecommunication Coalition was created to organize and promote the interests of three primary telecommunication bandwith users in the Santa Fe region, including Santa Fe Community College, Santa Fe County and the City of Santa Fe.

The primary mission of the Coalition is to further economic development activities in the region by developing Coalition projects that support our telecommunication needs and that begin to address workforce development issues. In doing this, we are creating in the Coalition, an organizational model that might be replicated in other regions of the state to address their telecommunication needs.

At this time the Coalition is formalizing its working structure as well as identifying and prioritizing potential projects even as we recognize that we are part of a much broader region. As further information becomes available regarding your report and initiative, the Coalition will be happy to discuss potential participation and involvement that may mutually offer benefits to SFRTC and the State.

In the meantime, we are attaching a summary description of our projects and interests, which you may use to include in your report. We also thank you for spending time with us to discuss your project, and would appreciate being included in any distribution of the report so we may mesh our considerations.

Sincerely,
Members of the Santa Fe Regional Telecommunications Coalition

Santa Fe Regional Telecommunication Coalition,   Regional Telecommunication Projects
       In addition to collaborating in the development of the infrastructure required to connect the Santa Fe Region to the Gigapop, the Coalition has identified the following regional projects that are currently under development:

Santa Fe County
       Santa Fe County Media Park + Santa Fe Studios
Santa Fe Community College
       NM Computing Application Center gateway + Distance Education Project +
       Advanced Technology Training Center
City of Santa Fe
       Regional telecommunication ring   + Airport Aviation Park +
       Las Soleras Business Center Development

USDA RUS Grants in New Mexico

USDA RUS Grants in New Mexico
Unites States Department of Agriculture - Rural Utility Service

Rural Development - Community Connect Awards

2008 Grant Awards

GEO PCS, LLC
Black Rock, New Mexico
Grant Amount: $856,611
Contact: Gregory Ofili, (404) 457-3235
County: McKinley; 3rd Congressional District
Rural Development funds given to GEO PCS, LLC will be used to provide broadband services to residents, businesses, and public entities of Black Rock, New Mexico. The community will enjoy the cost savings and convenience of health management, through a video conference network, linked to nearby healthcare facilities and the state Telemedicine network, as well as educational, economic, and public safety benefits.

GEO PCS, LLC
Salem, New Mexico
Grant Amount: $857,161
Contact: Gregory Ofili, (404) 457-3235
County: Dona Ana; 2nd Congressional District
GEOPCS, LLC will use Rural Development funding to provide broadband services to Salem, New Mexico. With broadband, the community expects to see local economic development, tele-work resource development, entrepreneurial resource development, and improvement of educational resources. A community center will be built with the funds, providing free broadband access to residents for two years.

2006 Grant Awards

Pueblo of Laguna
Pauguate, NM
County: Cibola
Grant Amount: $550,908
Contact: Governor Roland Johnson, 505-552-6654
Rural Development funds will be used to deploy a wireless broadband system to the village of Paguate. Grant funding will also aide in renovating the existing community center. This is a village that does not have POTS, imagine what bringing the Internet will do for communications

on this reservation.

Pueblo of Laguna
Seama, NM
County: Cibola
Grant Amount: $550,908
Contact: Governor Roland Johnson, 505-552-6654
Rural Development funds will be used to deploy a wireless broadband system to the village of Seama. Funding will also aide in renovating the existing community center.   This is a village that does not have POTS.

Pueblo of Laguna
Encinal, NM
County: Cibola
Grant Amount: $550,908
Contact: Governor Roland Johnson, 505-552-6654
Rural Development funds will be used to deploy a wireless broadband system to the village of Encinal. Funding will also aide in renovating the existing community center.   This is a village that does not have POTS.

Pueblo of Laguna
Mesita, NM
County: Cibola
Grant Amount: $487,971
Contact: Governor Roland Johnson, 505-552-6654
Rural Development funds will be used to deploy a wireless broadband system to the village of Mesita. Funding will also aide in renovating the existing community center.   This is a village that does not have POTS.

Pueblo of Laguna
Paraje, NM
County: Cibola
Grant Amount: $527,736
Contact: Governor Roland Johnson, 505-552-6654
Rural Development funds will be used to deploy a wireless broadband system to the village of Paraje. Funding will also aide in renovating the existing community center.   This is a village that does not have POTS.

Pueblo of Laguna
Laguna, NM
County: Cibola
Grant Amount: $633,939
Contact: Governor Roland Johnson, 505-552-6654

Rural Development funds will be used to deploy a wireless broadband system to the village of Laguna. Funding will also aide in renovating the existing community center.   This is a village that does not have POTS.

2005 Grant Awards:

Pueblo of San Juan (Ohkay Ohwingeh)
San Juan, NM
County: Rio Arriba
$565,963
Contact: Joe Garcia, Governor, 505-852-4400
Congressional District: NM-03
San Juan Pueblo is one of the smallest pueblos in New Mexico, with 2,342 persons residing on approximately 19,000 acres. The project will provide access needed to strengthen the Pueblo's vocational and educational goals and attract new business on tribal lands. It consists of the installation of wireless telecommunications to twelve critical community facilities in seventeen different locations, and 90 tribal residences.   The community facilities house eighteen tribal departments including the San Juan Community School, the Governor's office and tribal library, wellness center and diabetes program, boys and girls club, senior citizen's center, law enforcement and tribal courts, and community health and Indian child welfare. Ninety tribal residences will be connected to the wireless system, allowing children and adults to participate in the educational programs remotely as well.

Sacred Wind Communications, Inc.
Huerfano, NM
County: San Juan
$436,461
Contact: John Badal, CEO, 505-250-1284
Congressional District: NM-03
This wireless network broadband project will serve Huerfano, current population 379, located in a remote and rural section in the northeast of the Navajo Nation. Poverty, isolation, inferior health care, insufficient public safety, and poor educational service are part of this community's way of life. The project will bring broadband connectivity to the following locations: Huerfano Chapter House, the Huerfano Ha'naaadl'ii Community Center, the senior center, and the Ha'naaadl'ii Dormitory School. Residents will benefit by receiving preventative health information and medical alerts, receiving crime alerts, conducting e-commerce, enrolling in university and certificate programs, and receiving online job training. Students will benefit by after school academic research training and information about college applications and financial assistance. The project will offer free basic computer, Internet and webpage design classes at the community center.

2004 Grant Awards

Pueblo of San Ildefonso
Pueblo San Ildefonso, NM
County: Santa Fe
$472,906
Contact: Dale Martinez, 505-455-2273
Congressional District: NM-03
The 450 people of Pueblo of San Ildefonso and the surrounding communities of El Rancho, Jacona, La Mesilla, Jaconita and Nambe will receive basic broadband services from this project. The Pueblo will employ broadband wireless technology to reach locations where only slow (14.4Kb/sec), expensive (long-distance) wireline Internet connections exist. In addition to providing residential access, the project will enable the Pueblo government to enhance and streamline core public services including Head Start, tribal courts, cultural and social services, and community health outreach efforts.

2002 Grant Awards

Pueblo of Pojoaque
Santa Fe, NM
$579,767 Grant
Area(s) served: Pojoaque Pueblo, Santa Fe County
Contact: Mr. Jim Pierce, (505) 455-3254; FAX(505) 455-0620
Congressional District: 3rd
Pueblo of Pojoaque is one of nineteen federally recognized Native American Indian Pueblos in the State of New Mexico. The current tribal population consists of 333 persons. Pueblo of Pojoaque will use RUS community-oriented connectivity grant funds to provide wireless broadband access to nine critical community facilities, 16 tribal businesses, 80 tribal residences and one 3,000 square foot I.T. Community Learning Center. All of these facilities will receive broadband transmission service free of charge for at least two years from the date of installation. The I.T. Community Center will be open and available for use by the community six day a week, thirteen hours per day on Monday through Friday and eight hours on Saturday. By providing broadband telecommunications service to the community, this project hopes to attract new business and grow local business on the tribal lands, create new job opportunities, provide tribal police, courts and legal departments with real-time access to the National Crime Information and New Mexico Crime Information on traffic violators, and support a rural medical center with connectivity to regional centers.

Valley Telephone Cooperative, Inc.
Willcox, AZ
$199,960 Grant
Area Served: Columbus, Luna County, NM

Contact: Judy Bruns, (520) 384-2231; Fax: (520) 826-1064

Congressional District(s): Applicant AZ 5th, NM 2nd / Project NM 2nd Valley Telephone Cooperative, Inc., an RUS borrower, is an incumbent local exchange carrier serving telephone subscribers in southwestern New Mexico and southeastern Arizona. The applicant proposes to use RUS grant funds to provide digital subscriber line (DSL) broadband service to the Village of Columbus, New Mexico. The village is located in poverty-stricken southern Luna County where the unemployment rate is 14.2 percent, 55 percent of the households earn less than $15,000 in annual income, 50 percent of the adult population have less than a ninth grade education, and only six percent of the population possess a bachelor's degree. The community relies on distant providers for medical, police, and fire and rescue services. The project will result in broadband access to all residents of the community who desire such service. In addition, the project will include the establishment of a community center which will be located in the village library. The community center will aid residents in developing online

UpHi.net L.L.C.

Mountainair, NM

$444,488 Grant

Area(s) Served: Community of Mountainair, Counties of Mountainair and Torrance

Contact: Darlene F. Campbell, (505) 847-0036; Fax: (505) 847-0036

Congressional District(s): Applicant 1st / Project 1st

UpHi.net L.L.C. will use RUS grant funds to provide high-speed wireless Internet technology to the participating community organizations including the police department, volunteer fire and rescue department, senior center, public library, medical clinic, and elementary and high schools. The police and fire departments will be able to interact with national databases as well as recruit and train via the internet. The local, small medical facility will be able to obtain the latest in medical treatments, and access referrals. The grant funds will also be used for the construction of the community public access building. The population of 1,116 will benefit from this grant.

Ramah Band of Navajos

Mountain View, NM

$607,600 Grant

County Served: Cibola

Contact Person: Jay Moolenijzer, 505-775-7110; Fax: 505-775-7103

Congressional District: 2nd

This applicant plans to use RUS Grant funds to make broadband connectivity accessible to those living on the Ramah Band of Navajos Reservation via microwave technology. As a result significant economic, educational and social barriers will be removed. Broadband telephonic communications will be made available to all critical institutions and every household of the Ramah Band of Navajos, thereby creating jobs and educational opportunities and access to mainstream America.

Distance Learning and Telemedicine Awards

2007 Grant Awards

Southwestern Regional Education Center
New Mexico
$265,348
Areas Served: Sierra, Luna, Hidalgo, Dona Ana, Catron, Valencia
Contact: Dr. Bruce Brewer, 505-894-7589; Fax: 505-894-7584
Congressional District: NM – 02 Pearce
This project will provide much needed distance learning facilities to this rural area of Southwestern New Mexico. The project will utilize state-of-the-art videoconferencing equipment to facilitate collaborations between local secondary schools, colleges and universities and providing opportunities for local residents to pursue college degrees and job training. It will also reduce the difficulty related to travel and time to professional development for teachers and other professionals.

Region IX Education Cooperative
New Mexico
$462,981
Areas Serving: Bernalillo (part); Bernalillo (part), Chaves, Lincoln, Otero
Contact: Mr. Gary Cozzens, 505-630-8181; Fax: 505-630-8185
Congressional District: NM – 01 Wilson; NM – 02 Pearce
This project will deliver distance learning services over a wireless network infrastructure to seven school districts in southern New Mexico. The program will provide advanced mathematics and science programs to students and will assist teaching staff by providing professional development opportunities for them that would otherwise be unaffordable in times of tight operating budgets.

2006 Grant Awards

Health Centers of Northern New Mexico
Espanola, NM
$130,505
Areas Served: Colfax, Guadalupe, Harding, Mora, Rio Arriba, San Miguel, Taos
Contact: Ms. Juliana Anastasoff, 505-747-5922; Fax: 505-753-8717
Congressional District: NM-03
Rural Development funds will be used to reduce the marked health disparities in the region by increasing access to necessary preventive and specialist healthcare and to improve healthcare outcomes through clinical innovation, particularly for residents who suffer a disproportionate rate of preventable and chronic conditions due to the intersections of poverty, race and rurality. The project will allow access to prevention and disease management education, access to

specialist consultation, population-based clinical management, and development of distance learning communities designed to expand primary care provider capacity and expertise.

Southwest Regional Education Center
Truth or Consequences, NM
$154,939
Areas Served: Cantron, Dona Ana, Hidalgo, Luna, Sierra
Contact: Dr. Bruce Hegwer, 505-894-7589; Fax: 505-894-7589
Congressional District: NM
Rural Development funds will be used to extend distance learning opportunities and provide expanded course offerings in the schools and communities of rural New Mexico. The project will utilize interactive distance learning studio equipment to also provide professional development content for faculty and staff.

2005 Grant Awards

High Plains Regional Education Cooperative
Raton, NM
$454,668
Areas Served: Colfax, Union, Mora, Harding Counties
Contact: R. Stephen Aguirre, 505-445-7090; Fax: 505-445-7663
Congressional District: NM-03
The project will provide a distance learning network to enhance educational offerings and opportunities for teacher training for serve 3,786 students and their teachers.

Northwest Regional Education Center #2
Gallina, NM
$486,100
Areas Served: Rio Arriba, Taos, Sundoval Counties
Contact: Dr. Danny Trujillo, 505-638-5419; Fax: 505-638-0131
Congressional District: NM-03
The grant will fund state-of-the-art distance learning equipment in multi-media computer labs located in 4 rural high schools and 11 other schools in rural New Mexico. The project will serve over 5,000 students in 3 counties.

2004 Grant Awards

Central Consolidated School District #22
Shiprock, NM
$490,910
Area(s) served: Cities of Shiprock, Kirtland, Fruitland, Newcomb, and Naschitti

Contact: Chuck Culpepper, 505-368-4984; Fax: 505-368-5232
Congressional District(s): NM-03
Central Consolidated School District #22 is located in San Juan County, New Mexico, an area which covers 5,514 square miles. With RUS funding, the School District will provide expanded course offerings, provide higher education opportunities in the schools and communities, and provide professional development for students and residents.   Seven schools with 3,229 students will benefit from the program. Shiprock High School will house the hub site. The end-user sites are located at Kirtland Central High School, Ojo Elementary, Newcomb High, Newcomb Middle School, Newcomb Elementary, and Naschitti Elementary.

Northeast Regional Education Cooperative
Las Vegas, NM
$398,936
Area(s) served: Guadalupe, Mora, San Miguel, and Sandoval Counties
Contact: Mary S. Schutz, 505-426-2085
Congressional District(s): NM-02, NM-03
The grant will provide interactive video equipment to help establish distance learning classrooms in two middle schools and five high schools in five rural communities in New Mexico. The schools will all be connected to a hub located at New Mexico Highlands University in Las Vegas, New Mexico. Using the new equipment and existing T-1 connections, the schools will be able to offer additional educational opportunities to the 2,956 students who attend these schools. Teachers will use the equipment to obtain additional training and expertise by participating in university classes and professional development programs via distance learning. Adult educational services will also be enhanced through the new distance learning classrooms, affording opportunities for local residents to acquire additional skills and certifications which will open up new career paths and employment possibilities.

Northwest Regional Education Center #2
Gallina, NM
$500,000
Area(s) served: Rio Arriba County
Contact: Dr. Danny Trujillo, 505-638-5491
Congressional District(s): NM-03
The Northwest Regional Education Center #2 has collaborated with Mesa Vista Consolidated Schools, Jemez Mountain Schools, Dulce Independent Schools, and Chama Valley Independent Schools to form the Northern New Mexico Distance Learning Cooperative. The distance learning project will include increased instruction, expanded course offerings, and instruction in on-line research. On-line and videoconference adult education courses will also be offered from colleges and universities throughout New Mexico.   Over 2,500 students as well as the residents of Rio Arriba County will benefit from this program.

2003 Grant Awards

University of New Mexico
Gallup, NM
$478,555
Area(s) Served: McKinley County
Contact: Robin Tice, (505) 863-7603; Fax: (505) 863-7739
Congressional District(s): 3rd
The University of New Mexico will utilize RUS grant funding to provide distance learning opportunities for 7 schools and tele-radiology equipment for two end-user sites in rural communities located in Northwestern New Mexico. Goals of the project include providing grater access to adult basic education courses, access to developmental education, access to community and continuing education and college courses for high school students in rural communities. Additionally, the project will provide tele-radiology services for rural health care providers, telemedicine services to dialysis patients. The project will expand the distance education and telemedicine network in McKinley County serving over 75,000 residents.

2002 Award

University of New Mexico
Gallup, NM
$432,536 Grant
Area(s) Served: County of McKinley
Contact: Robin Tice, (505) 863-7603; Fax: (505) 863-7739
Congressional District(s): Applicant 3rd / Project 3rd
The University of New Mexico will use RUS funds to add four new telemedicine sites and one new distance learning site to an existing network in rural New Mexico. The telemedicine part of the project will fund a tele-pathology system, as well as a cardiac rehabilitation and prevention program. The distance learning part of the project will fund network upgrades for the hub site, graphic design software, computer hardware for wireless computer labs, network printers and other components. Social, economic and geographic challenges are a part of life in this area of the country. Those challenges include language barriers in the Native American population, high unemployment and poverty rates, and roads that are often impassable due to weather conditions. Over 40 percent of the adult population have not graduated from high school. This project will provide many opportunities for the residents of this area to improve their health, education and, over time their entire standard of living. Approximately 875 students and many other rural residents will benefit from this project

2001 Grant Awards

Clayton Municipal School District No. 1
Clayton, NM

$163,100 Grant
Area(s) served: Union County
Contact: Mr. Jack Wiley, Superintendent; (505) 374-9611, Fax: (505) 374-9881
Congressional District(s): 3rd.
Clayton Municipal Schools are located in rural Union County in the northeast corner of New Mexico. The school district will use RUS grant funds to bring asynchronous distance education to the entire population of the Clayton Public Schools District, from school students to adults of any age. Distance learning capabilities will be brought to all four schools in the district, including the creation of the El Llano Estacado Distance Education Laboratory that will be housed on the Clayton High School campus. This laboratory will be accessible to all members of the community. Approximately 700 K-12 students and an additional 700 adults will benefit from this project.

University of New Mexico B Gallup
Gallup, NM
$482,420 Grant
Area(s) served: McKinley County
Contact: Ms. Robin Tice; (505) 863-7603; FAX (505) 863-7739
Congressional District: 3rd.
The University of New Mexico (UNM) B Gallup ALINK@ project will use RUS grant funds to bring distance learning technology to McKinley County, New Mexico. Gallup, a town of 19,157 residents, is rural and isolated, as it is 135 miles from the nearest metropolitan community, Albuquerque. Seventy percent of the residents of this area are Native Americans. UNM-Gallup will create a broadcast center hub and enable two newly constructed "Smart" classrooms with this same technology. The other end-user sites include three UNM-Gallup Adult Basic Education satellite sites (UNM-Gallup North Campus, Gallup; UNM-Gallup South Campus, Zuni; and Tohatchi ABE, Tohatchi), one healthcare facility (Rehoboth McKinley Christian Hospital, Gallup), one at the Mega Central E-commerce Center (Gallup), and four Gallup-McKinley public school district sites (Gallup High School, Navajo Pine High School, Crownpoint High School, and Thoreau High School). This project will provide for both synchronous (class sessions) and asynchronous (Internet) learning modalities. The goal of the project is to provide easily accessible health, education, and economic opportunities via telecommunication technologies. In addition, students will be able to access the Libros system, a web-based library resources catalog utilized by colleges and universities throughout New Mexico.   This project will benefit approximately 70,000 residents of McKinley County.

2000 Awards

WESTERN NEW MEXICO UNIVERSITY
Silver City, NM
$350,000 Grant
Area(s) served: Hidalgo, Grant, Catron, and Socorro Counties

Contact: Mr. Otto Khera, (505) 538-6360; FAX: (505) 538-6064
Congressional District: 2nd
Western New Mexico University (WNMU) will use RUS grant funds to connect four school districts located in Southwestern New Mexico to WNMU's existing network via a Wide Area Network. These four school districts, Lordsburg Public Schools, Reserve Public Schools, Quemado Public Schools, and Magdalena Public Schools, are geographically isolated and have limited educational resources. This project will provide these four school districts with two-way videoconferencing capabilities with every major university and college in New Mexico, including University of New Mexico in Albuquerque, New Mexico State University in Las Cruces, Eastern New Mexico University, and Highland University. Approximately fifty students from each end user site will enroll in concurrent enrollment classes through these colleges and universities.   In addition, teachers at each of the end user sites will be able to participate in professional development programs offered through these institutions of higher learning.

LAS CLINICAS DEL NORTE
El Rito, NM
$257,800 Grant
Area(s) served: Rio Arriva County
Contact: Mr. John Ussery, (505) 581-4728, FAX: (505) 581-4789
Congressional District: 3rd
Las Clinicas del Norte (LCDN) is a not-for-profit organization which provides medical dental counseling and community services in a sparsely populated 2500 square mile area. LCDN plans to use RUS grant funds to provide high bandwidth wireless connectivity for community lay health workers, enabling in-home dental treatment through the use of two-way PC based teleconferencing and Internet based patient education. These connections to the Internet will also provide continuing education for the existing staff and communication with other health care organizations. LCDN has already been funded by the New Mexico legislature to install a x-ray system at its El Rito facility. RUS will provide the telemedicine link necessary so radiologists at another health care facility will be able to read the x-rays. The telecommunications system developed for the above will also support access to the Internet by patients in the community, for the purpose of education, telemedicine, and economic development. This project will serve approximately 10,415 rural residents.

1997 Awards

Des Moines Municipal Schools
Des Moines, NM
Award: $158,157 Grant / Loan: $91,920
Total: $250,077
Area Served: Cities and Counties of Des Moines and Union
Contact Person: Midge Y. Graham, 505-278-2611; Fax: 505-278-2617
The Des Moines Municipal Schools in collaboration with the Emergency Medical Service Region III and in cooperation with Baca Valley Telephone Company will use RUS funds to

purchase the necessary equipment needed to create a two-way video, audio and data distance learning network. This network will connect the Des Moines schools with the Eastern New Mexico Rural Consortium of Schools, Clovis Community College, The University of New Mexico and other universities, colleges and training centers. A successful distance learning network will provide enhanced curriculum for K-12 students, concurrent enrollment for high schools students, higher education and continuing education opportunities, mentor support for students and teachers, technology training and recertification training for EMS personnel. They are estimating that 1, 640 rural residents will benefit from this project.

Northern New Mexico Community College
Espanola, NM
Award: $300,000 Grant
Area(s) Served: Counties of Rio Arriba and Taos; Enterprise Communities: Lumberton, Embudo, La Bolsa, Rinconada, Dixon, El Bosque, Apodaca, Montecito, Canoncito, Truchas, Cordova, Rio Chiquito, Los Pachecos, Upper Chimayo, Cuestecitas, Ojo Sarco, Trampas, Ell Valle, Ojito, Llano, Rodarte, Llano Largo, Rio Pueblo, Las Mochas, Tres Ritos, Sipapu
Contact Person: Kathleen Gygi, 505-747-2238; FAX: 505-747-2238
Northern New Mexico Community College will create a broadband, regional videoconferencing network serving the rural counties of Rio Arriba and Taos in north central New Mexico. Northern New Mexico Community College will use RUS grant funds to establish a two-way video system connecting itself with Chama Valley, Dulce, Espanola Valley, Mesa Vista, and Penasco High Schools. The system will be used to provide concurrent enrollment and professional development courses, locally, as well as skills training for microelectronics manufacturing and other high technology fields, and public meetings for the county government. The schools involved serve 774 high school students, 2,200 credit-earning college students, and 3,000 continuing education students.

1995 Grant Award

Guadalupe County Hospital
Santa Rosa, NM
Located in a remote area in eastern New Mexico, the hospital will be linked to a medical center and university in Albuquerque. The system will provide tele-radiology; emergency, primary, and secondary care consultation; and tele-cardiology. In addition, ongoing medical education will be available for doctors, nurses and other health care professionals.

CHECS-Net Description

CHECS-Net

CHECS-NET is New Mexico's Education Intranet. It interconnects many New Mexico education institutions to more effectively communicate with each other. An extensive video conferencing infrastructure has been developed to share courses and reduce meeting expenses. In addition it provides high-speed connections to the Internet and Internet2. CHECS-Net was formed in 1994 in an effort to pool resources to provide the best connectivity possible to all institutions. It is a member-funded network, currently run by New Mexico State University with oversight and guidance from CHECS ETC.

Accomplishments:

The following entities are currently connected via CHECS-Net

This is only the primary connector. There are many sites behind the primary site, which CHECS also facilitates connections to. Examples are NMHU, which includes not only the Las Vegas campus, but also their Los Lunas, Raton, Taos, Rio Rancho and Espanola campuses; and as well as connections to Mesalands, SFCC, SIPI, Alamo, San Felipe, and Ohkay Owingeh.

- Animas Public Schools
- Clovis Community College
- Dona Ana County Offices
- Eastern NM University at Portales
- Eastern NM University at Roswell
- Loving School District
- Mesalands
- NM Highlands University
- NM Junior College
- NM Military Institute
- NMSU: Alamogordo, Carlsbad, Dona Ana, and Grants
- NM Institute of Mining and Technology
- NM School for the Visually Impaired
- Raton Public Schools
- Region IX
- Ruidoso Public Schools
- San Juan College
- Santa Fe Community College
- UNM Media Technology Services
- Western NM University

CHECS-Net provides the following

- Connectivity Consultation
  - o CHECS-Net personnel assist in planning, installation, and upgrades for CHECS-Net connections.
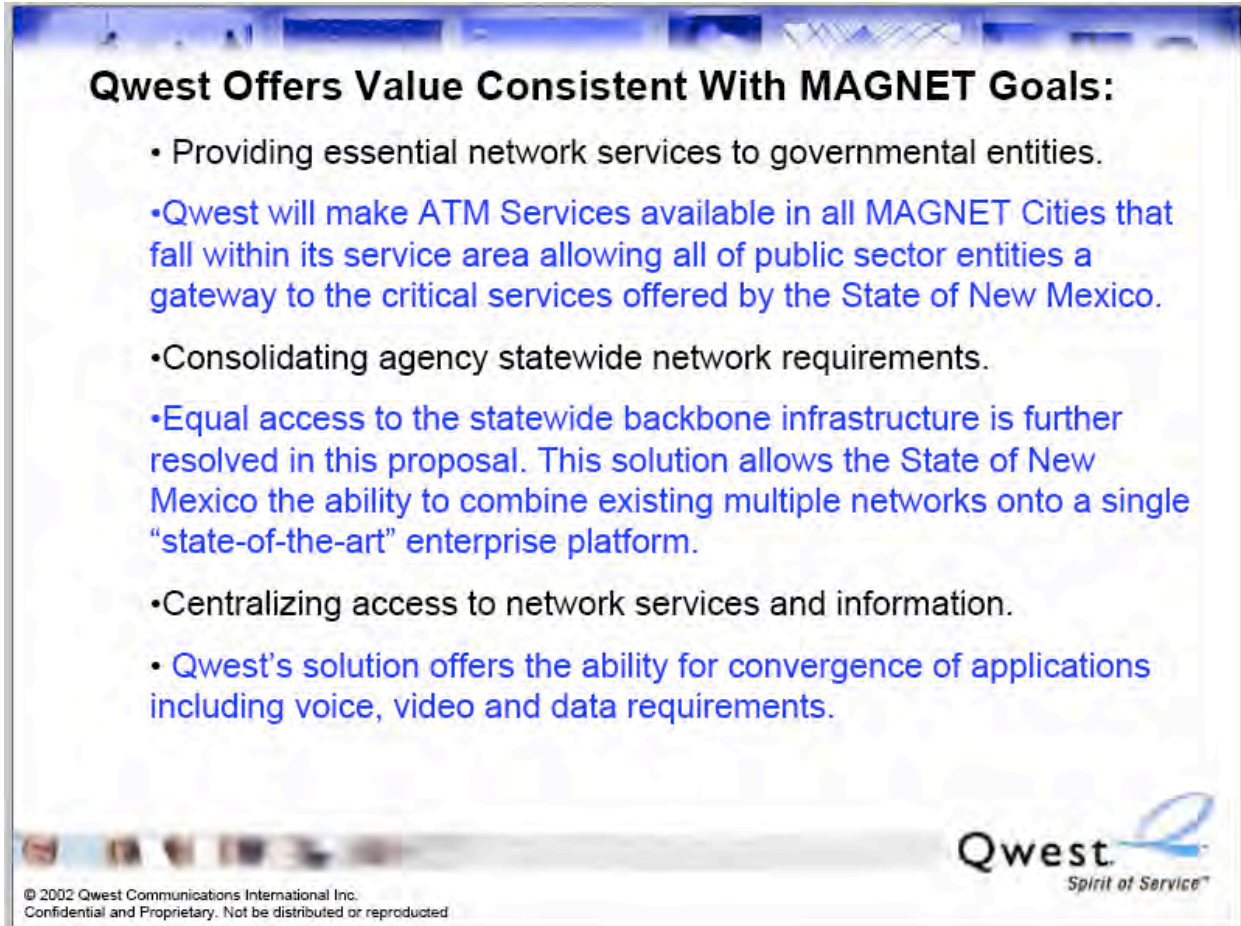
NM ILEC Companies

ILEC COMPANIES 2008

Docket/Case or Special Permit NO./FINAL ORDER DATE	COMPANY	CONTACT PERSON(s)	ADDRESS	TELEPHONE FAX NUMBERS	EMAIL
06/15/1987(I) 07/01/1987(E)	BACA VALLEY TELEPHONE CO., INC	PEGGY BRIESH	POB 67, DES MOINES, NM 88418	(505)278-2101 (505)278-2106F	peggy@bacavalley.
Doc.No. 98-148-TC 05/19/1998	CENTURY TELEPHONE ENTERPRISES, INC. (of the Southwest)d/b/a UNIVERSAL TELEPHONE CO. OF THE SW	TED M. HANKINS	POB 4065, MONROE, LA 71211	(318) 388-9416 (318)388-9602F	ted.hankins@centu
NMSCC 94-863 09-11-1995	COPPER VALLEY TELEPHONE CO-OP	KEVIN FEWELL	752 E. MALEY, WILCOX, AZ 85643	(520)384-2231 (520)865-2881 (800)421-5711 (520)865-4114F	
11/1981 06/1987	DELL TELEPHONE COOPERATIVE, INC	RICHARD PAGE	610 S. MAIN, DELL CITY, TX	(915)964-2352 (520)964-2402F	_
07/01/1987 12/18/1997 05/16/2000	**ENMR TELEPHONE CO-OP., INC. D/B/A EASTERN TELECOMMUNICATIONS D/BA/ PLATEAU TELECOM., INC.**	**TOM M. PHELPS, GM STEVE METTS**	**POB 1947 - NO. PRINCE STREET CLOVIS, NM 88102-1947**	**(800)432-2369 (505)389-5100 (505)389-5103F**	**smetts@plateaute**
06/15/1987(I) 07/01/1987(E)	**LA JICARITA RURAL TELEPHONE CO-OP**	**DAVID LEWIS, CONSULTANT**	**GVN CONSULTANTS, INC. 1412 SIDNEY BAKER KERVILLE, TX 78028**	**(830)895-7233 (505)387-2216 (505)387-9010F**	**dlewis@ktc.com**
No. 000449 10/25/1966 91-259-TC 02/19/92	LEACO RURAL TELEPHONE CO-OP.	JOHN SMITH PHILGUNDERMAN	1500 NO. LOVE STREET LOVINGTON, NM 88260	(800)851-0554 (505)398-5352 (505) 433-4709 (505)398-5350F	jsmith@leaconet.cc
Case No. 3364 08/15/2000	MESCALERO APACHE TELECOM, INC. C/O BEACON TELECOM ADVISORS	GODFREY ENJADY	2055 ANGLO DRIVE, #201 COLORADO SPRINGS, CO 80918	(505)464-4039 (505)464-9320F	mporeilly@matisp.r

Doc. No. 95-572-TC	NAVAJO COMMUNICATIONS INC	CURT HUTTSELL	4 TRIAD CENTER, STE. 200 SALT LAKE CITY, UT 84180	(801)924-6358 (801)924-6363F	chuttsel@czn.com
No. 000449 12-18-1987	PANHANDLE TELEPHONE COOPERATIVE, INC.	BOB ROZELL	POB 1188, GUYMON, OK 73942	(580)468-2166 (580)338-2556 (580)338-4225F	rozell@ptsi.net
No. 1067 02/7/1984	PENASCO VALLEY TELEPHONE CO-OP., INC	JOHN METTS CARL WILSON	401 WEST MAIN STREET ARTESIA, NM 88210	(505)748-2510 (505)748-1241	cwilson@pvt.com
	QWEST CORPORATION D/B/A US WEST	DIRECTOR-REG. AFF. MICHAEL HORCASITAS	400 TIJERAS NW, ROOM 510 ALUBUQUERQUE, NM 87103	(505)245-8485 (505)245-5855 (505)245-6190F	mhorcas@qwest.cc
06/15/1987(I) 07/01/1987(E)	ROOSEVELT COUNTY RURAL TELEPHONE CO-OP, INC.	CECILE ARCHIBEQUE	POB 867, PORTALES, NM 88310	(800)658-9577 (505)359-1273 (505)276-9686F	carchibeque@rcrtc.
	SACRED WIND COMMUNICATIONS, INC.	JOHN BADAL VERA LANDSTROM	5901-J WYOMING BLVD., NE #226 ALBUQUERQUE, NM 87109	(505) 821-5080	vlandstrom@swtel.c
Doc. No. 94-321-TC 10/19/1994(I) 08/16/1996(E)	TULAROSA BASIN TEL. CO., INC	CHARLES FERRELL	POB 68, TULAROSA, NM 88352-0068	(505)585-9800 (505)585-8208F	cferrell@tbtc.net
No. 84-214 03/15/1984(I) 04/3/1984(E)	VALLEY TELEPHONE COOPERATIVE, INC	STEVEN D. METTS RICH DULLUM VIRGIL BARNARD	POB 970, WILLCOX, AZ 85644	(800)421-5711 (520)384-2231 (520)384-2831F	judy.bruns@vtc.net rich.dullum@vtc.net virgil.barnard@vtc.net
3217/3218 06/21/2000	WINDSTREAM COMMUNICATIONS f/k/a VALOR COMMUNICATIONS	BILL GARCIA, ESQ. VP NM GVTMNT AFFAIRS	1800 Old Pecos Trail, Ste. J Santa Fe, NM 87505	(505)955-9700 (505)955-9699F	bill.garcia@windstre
Doc. No 97-380-TC 09/29/1997(I) 11/14/1997(E)	WESTERN NEW MEXICO TELEPHONE CO., INC	JOHN FRANCIS	POB 3079, SILVER CITY, NM 88062	(800)535-0611 (505)388-2546 (505)388-2440F	jfrancis@wnmt.com

Qwest MAGNet Goals

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Qwest MAGNet ATM Service Area
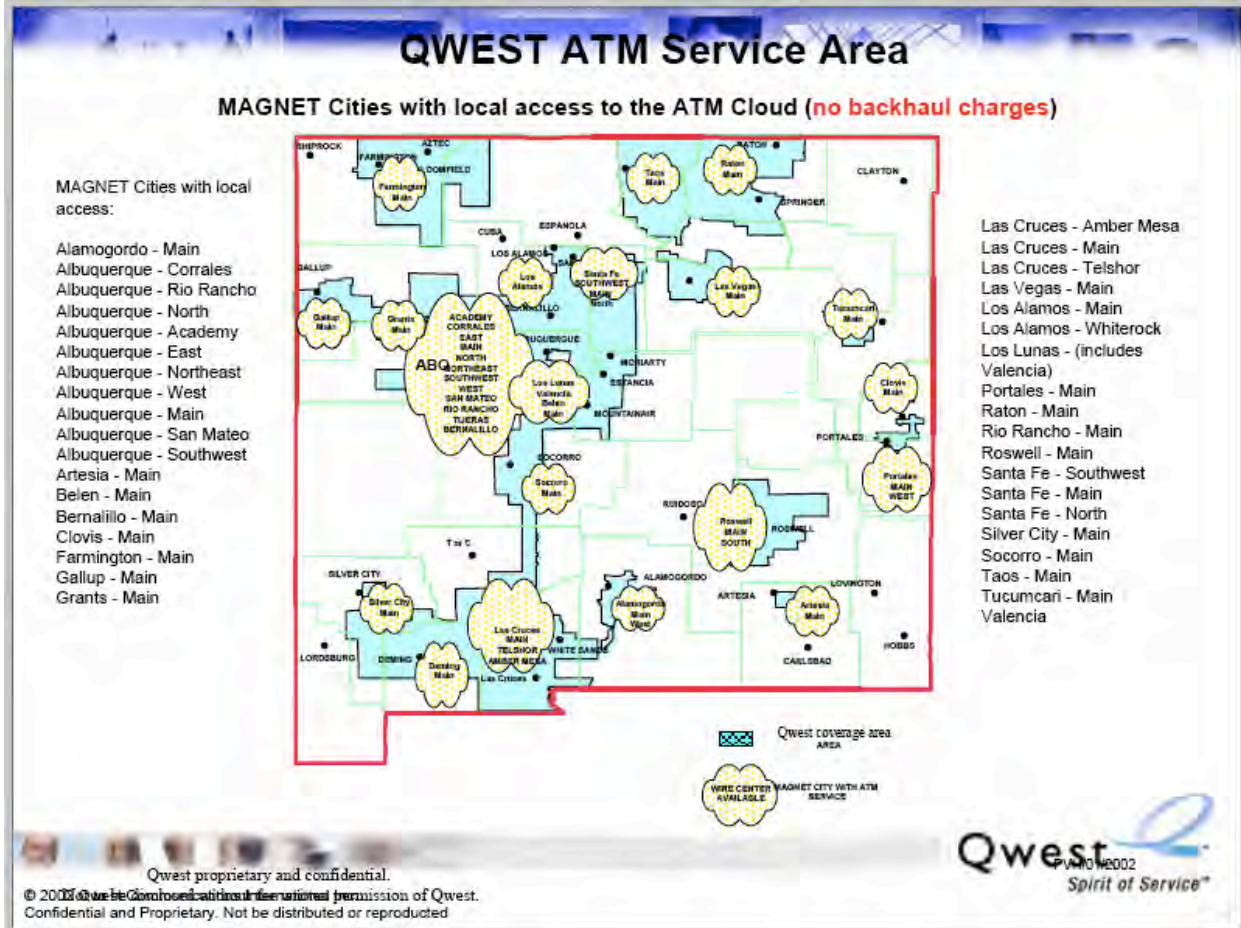
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Qwest SASA Update: Sept. 11, 2008

Qwest NM: Update on the Second Amended Settlement Agreement (SASA)

Sept. 11, 2008: Draft

Second Amended Settlement Agreement Overview

Signed into effect February 1, 2007

Timeline – Critical dates for SASA compliance
• October 31, 2008 - Interim report is due
• Sept 08 – Jan 09 - Audit of interim report
• January 31, 2010 - High speed internet deployment completed
• July 31, 2010 - All other projects categories completed

Capital spend by category
• a – Spend requirement - $81.3M on high speed internet deployment
• b – Estimate - $33M on central office diversity and redundancy
• c – Spend requirement - $30M on facility rehabilitation
• d – Spend requirement - $50M total - $40M on advanced telecommunications technology and $10M on fiber feeder jobs
• e – Estimate - $60.7M to either be spent on network improvements/capacity augment or shifted into one of the other project categories

Total capital spend over the life of the SASA $ 124,239,404
Total expense over the life of the SASA $ 7,908,459
Total spend over the life of the SASA YTD * $ 132,147,863

SASA Overview by Category

a – High Speed Internet (broadband) Access Project
• More than $61M spent since 2/1/07
• Coverage: Rural (64%); Urban (82%); State-wide coverage (80%)
• 21 Central Office (COs) deployed; two (2) remaining:
• Mountainair: Building addition should complete mid July. Site survey for DSL job will be done right after (ERFS 9/15/08)
• Penasco: Radio and Fiber Build (7251A0Q) required. Radio Job planned to complete by 10/25/08, High Speed Internet job expected to complete right after (Estimated Ready For Service (ERFS) of 11/14/08)

• 186 Remote Terminals (RTs) deployed as September 8, 2008

b – Redundant and Diverse Routes Project
• More than $14M spent since 2/1/07
• Farmington project completed during 1Q08 (2/18/08)
• Also completed diverse routes for: Angel Fire; Cimarron; Las Vegas; Los Alamos; Springer; Taos Main

c – Cable Improvement Project
• Almost $19M spent since 2/1/07; completed 58 characterization jobs and replaced:
• 33.14 miles of cable
• 780 terminals
• 17 systems

d – Advanced Telecommunications Technologies Project
• More than $17M spent since 2/1/107 on Advanced Telecommunications Technology and more than $6M spent on fiber feeder jobs

e – Network Improvement and Capacity Augment Projects
• More than $13M spent since 2/1/107
• Inter-Office Facility (IOF) Jobs across New Mexico to facilitate expansion of Qwest's high speed internet service and Qwest Metropolitan Optical Ethernet (QMOE) deployments

SASA Overview
Second half initiatives

a – High Speed Internet (broadband) Access Project
• Completion of remaining phases by end of 3Q09 in order to let all jobs close by end of 4a term which is Jan 31, 2010
• Completion of all Central Office deployments
• Continue deployment of Fiber to the Node (FTTN) sites
• Increase rural coverage in all rural offices to 50% of the working living units
• Increase state coverage to 83% of all working living units

b – Redundant and Diverse Routes Project
• Completion of remaining phases by month 42 to get SASA credits

c – Cable Improvement Project
• Continue with the identification of bad sections and meet spend requirement by

month 42 in order to get SASA credit
• Prioritize and implement work currently identified to replace:
• 100 plus miles of cable;
• 2,735 terminals;
• 224 systems; and
• 6 miles of air pressure pipe

d – Advanced Telecommunications Technologies Project
• Complete jobs on 4d list and spend the required $10M on fiber feeder jobs

e – Network Improvement and Capacity Augment Projects
• Complete the jobs on the 4e list including the Qwest CyberCenter build which
will build out an initial 9,000 sq. ft. of space at 400 Tijeras in Albuquerque at a
cost of approximately $10M. $7.8M will fall under category 4e of the SASA. The
engineering on the project has started and we expect to have the project
completed by 4Q09.

Issues
Audit selection
• Have submitted Auditor selection to the New Mexico PRC seeking approval.
Expect to start audit in late September and complete no later than January 15,
2009
Qwest CyberCenter in Albuquerque
• Now approved, Qwest is planning on having the CyberCenter on line by the end
of September 2009
ROW/SLA continues to be an issue
• May need to seek a variance if ROW and SLA are stonewalled
• 4b conditional sites
• Cost and ROW issues may prevent some of this sites from deploying including
Fort Wingate and White Rock

Navajo Nation White Paper

TELECOMMUNICATION
INFRASTRUCTURE DEVELOPMENT ON THE NAVAJO NATION
By The Office of Navajo Nation Telecommunication Regulatory Commission

Background

In the private telecommunication industry of the Navajo Nation there are two major Incumbent Local Exchange Carriers that currently provide services to the Navajo Nation. One of the two incumbents, Frontier communications, has been improving their connective to their existing customers by offering bandwidth and internet services. By using a mixture of copper wires, fiber optics, and microwave antennas, Frontier can now provide internet services to approximately 60 chapter houses on the Navajo Nation. However, due to conflicts with the Navajo Nation's Legislative Oversight Committee that governs right-of-ways approval, this system is limited and is not likely to grow in the near future. The other incumbent, Sacred Winds, just recently received their incumbent status and has obtained several grants and loans to prove services to 4 chapters of the Navajo Nation. The efforts of the two incumbents have achieved a penetrate rate of 58% on the Navajo Nation. All other CLEC's, cellular carriers, and long distance carriers use this land based system to provide various types of telecommunication services.

Under the efforts of Cellular One, Commnet, and Conterra, major advancement was made in providing wireless telephone service to the communities of the Navajo Nation. By obtaining the status of a competitive Eligible Telecommunication Carriers, all three entities have established community towers and inter-connection agreements to bring wireless communication services to 3 major highways and all of the rural communities mentioned above. All other CDMA (Verzion and Sprint) and GSM (T-mobile and AT&T) carriers roam on their systems.

The Division of Community Development, in 2000 and for the next seven years thereafter, utilized a grant from the Bill and Melinda Gates Foundation to establish community information portals at each of the 110 Navajo chapters. These portals consisted of two to four computers connected to the Internet via a two way satellite system at each of the communities. This satellite system is also used to provide connectivity to first responders, such as police officers, via a 900 Mhz radio system used for voice and data. The Satellite system can be used to provide telecommunication services to the remaining 42% of the Chapters until the incumbents can settle rights-of-way agreements and obtain the required funding resources.

The Navajo Tribal Utility Authority is the Navajo Nation's (NTUA) utility provider. They have established a wireless network to communicate with their field personnel and to monitor their utility systems. This network is composed of microwave towers and two-way radio systems that are located throughout the highest points of the Navajo Nation. From these locations NTUA can reach approximately 60% of the Nation to operate and maintain their system. Because of the availability of power and access roads, these high points are also occupied by transcontinental

energy companies, State and Federal public safety entities, and other microwave providers (NCC, Sparkplug, Conterra) that provide back haul connectivity to support the ILECs, the CLECs, and the Cellular entities.

The educational, health and public safety entities of the Navajo Nation procure services from other wireless telecommunication providers that share either tower space or adjacent land with the utility companies. These telecommunication providers have interconnection agreement with other incumbents to connect to the outside world.

Technology Infrastructure Overview

Currently there are many on-going telecommunication technology plans for the Navajo Nation. For instances, each Division of the Navajo Government plans out their annual funding allocation to meet their data connection and communication needs. In most cases, these connections require a link to remote agency/regional offices. The incumbent phone company, along with the wireless providers, provides most of the services to meet these needs but, due to distant and remoteness, the cost to each requesting department/divisions is exceedingly high. Therefore it is in the best interest of the Navajo Nation to develop alternative strategies to meet it growing needs.

Strategic Overview

The primary goal of Telecommunication Technology plan is to provide services to the Navajo Nations' Educational, Health, Public Safety, Governmental, and Economical Entities. The NNTRC Office has developed six telecommunication strategies to initiate and implement a Navajo Nation Telecommunication plan. The strategies are;

-Build a communication environment using existing wireless infrastructure for high-speed services to Government, Public Safety, Economic Development, Health and Education entities

-Enhance this communication environment with fiber landlines by collocation on public rights of way occupied by utility and transportations companies for redundancy.

-Enhance the human resources to provide regional and local support of the entire telecommunication infrastructure.

-Administer a Tribal Universal Service fund to Sustain Telecommunication Infrastructure

-Establish and administer a Navajo Nation incorporated Telecommunication Enterprise to operate and maintain the Telecommunication Infrastructure.

-Maintain and regulate Quality Control of Telecommunication Service throughout the Navajo Nation Telecommunication Regulatory Commission.

These goals are to fund and support the use of the existing telecommunication infrastructure in the short term and began the development of a long term truly scalable Navajo Nation telecommunication system that will meet the need of the Navajo Nation. Our culture has a story of creation that involves a journey from one world to the next with each world offering new resources and opportunities. The Navajo Nation Telecommunication Regulatory Commission believes that by partnering with the States and Federal authorities, we can usher in quality services and began to lead the Navajo Nation to a new and resourceful world.
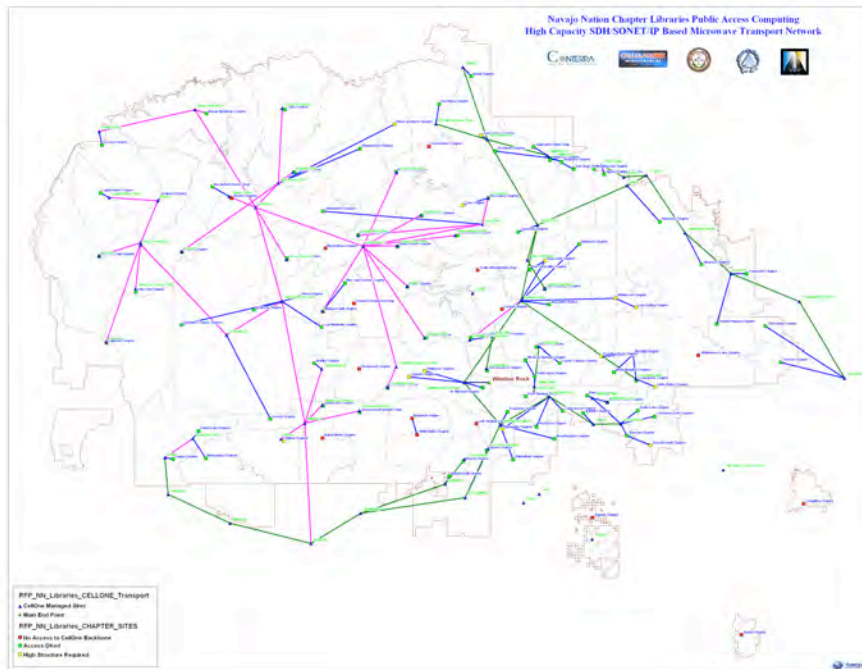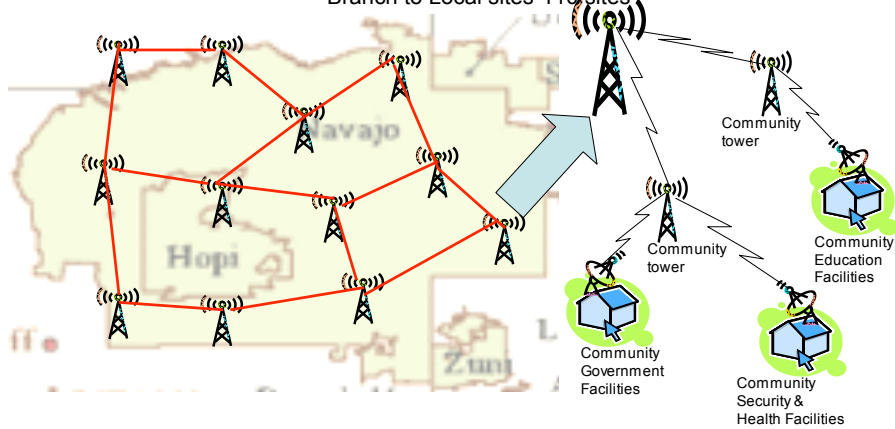
Navajo Nation Network Diagrams

Strategic Technology Plan

Goals and Objectives

Build a Technology environment using existing Telecommunication capital for High-speed services to Government, Security, Economic Development, Health and Education entities.

Wireless Backbone- 10 sites
Branch to Local sites-110 sites

Community tower

Community tower

Community Education Facilities

Community Government Facilities

Community Security & Health Facilities

Las Cruces TAC Report: May 16, 2008

City of Las Cruces Broadband Technology Advisory Committee: Interim Report
Approved May 16, 2008

The Broadband Technology Advisory Committee ("TAC") was established in 2007 in order to evaluate the impact of evolving broadband technology and to develop a set of recommendations for the City's future broadband development.

While there are a host of issues and alternatives to consider the TAC has reached a consensus position on some basic tenets. We feel it important to provide this input to the City as guidance for interim actions while the TAC is continuing to develop a comprehensive set of recommendations. The City of Las Cruces should adopt and implement the following statement of policy:

1. Broadband Expansion is a Social and Economic Imperative
 a. Broadband is the economic Highway of the 21st century.
 b. Broadband availability and adoption has a significant impact on Economic
  Development. Studies suggest 1-2% increase in annual GDP growth.
 c. Valuable emerging civic and public benefit services, especially in the fields of heath and
  education, are dependant on Broadband facilities.
 d. The DOD funded expansion of WSMR, Holloman and Ft. Bliss expansions requires
  Broadband capacity in Las Cruces.
 e. Fiber Optics is the backbone technology with wireless and other technologies playing an
  important role in mobile and nomadic communications as well as rapid deployment
  to less dense locations.
 f. Ubiquitous Broadband deployment would enable enhanced community development.

2. Integrate Broadband Infrastructure as major element of Strategic Planning (Economic Development, Zoning, etc.)
 a. Coordinate city-wide partnerships
 b. Identify grant and funding opportunities
 c. Use Communications as alternative to Transportation to reduce costs and environmental
  impacts of commuting.
 d. Identify and develop new civic services to reduce cost and improve quality of service to
  the citizens.

3. Promulgate the Vision and articulate the Role of Broadband in the City's future.

4. Develop a Comprehensive Inventory of Municipal Assets which may be applicable to Broadband deployment(s). These assets may be utilized to reduce the cost of future broadband initiatives (public or private) and/or create revenue generating opportunities; this is a highly

leveraged activity which should be undertaken immediately.
 a. Spare Fiber optics capacity
 b. Fiber Conduit
 c. Sewer/Storm pipes and abandoned water lines
 d. Utility ROW
 e. Light Poles
 f. Pole attachment rights
 g. Licensed microwave radio frequencies

5. Creation of Municipal Assets
The TAC recommends that the City of Las Cruces take the following immediate steps which will
both create valuable municipal assets and reduce the time and cost of implementing future
broadband infrastructure:
 a. Enact a policy that provides for the installation of utility conduit as an integral part of
  any and all major street works.
 b. Modify the City Zoning and Building codes to require all major new subdivision to
  install utility conduit to each parcel as an integral part of the subdivision utilities.

6. The City of Las Cruces should sponsor the creation of a Regional Broadband Initiative –
a regional approach will maximize the benefits to the whole area.
 a. Many of the benefits of Broadband are best pursued on a regional basis.
 b. Leverage "core" network as access to all of Dona Ana County stakeholders
 c. Coordinate with El Paso undertakings to ensure most competitive access to the Global
  network.
 d. Integrate NMSU, LCPS, DAC, WSMR, FB and all major public and private institutions
  to develop synergistic solutions.

New Mexico Municipal League Broadband Resolution: 2006

RESOLUTION NO. 2006-62

CONCERNING CITY BROADBAND NETWORKS

Whereas, broadband telecommunications access has become as vital to cities and towns today as railheads, streets, highways and airports continue to be; and

Whereas, broadband access is a vital component of economic development, distance learning, tele-health and other services and positive outcomes; and

Whereas, New Mexico cities and towns can leverage improved broadband infrastructure and services to help New Mexico overcome its chronically low rating in per capita income; and

Whereas, continuing to rely solely on monopoly or near-monopoly incumbent providers for broadband infrastructure is not a valid option due to New Mexico's low priority status in national investment strategies and due also to a shortage of investment capital by private-sector; and

Whereas, a new model of private-public partnership for broadband deployment is being successfully deployed known as the UTOPIA model whereby cities play an active role in improving their own future via ultra-broadband infrastructure; and

Whereas, the UTOPIA model offers sound financial and business components, ultra-broadband services to all residents and businesses thus overcoming the "digital divide"; and

Whereas, the UTOPIA model of broadband deployment is open to all qualified service providers including incumbents, thus fostering a richer array of competitive offerings rather than reliance on monopoly or duopoly options most commonly available.

Now, Therefore Be It Resolved by the New Mexico Municipal League that:

- The New Mexico Legislature should be encouraged to allow cities and towns to continue the opportunity to explore such options;

- The New Mexico Legislature should explore funding and policy mechanisms to support towns and cities that might not otherwise be able to participate in such public-private broadband models; and

- Relevant committees of the New Mexico Legislature explore the UTOPIA model as a new approach to providing broadband services to the residents and businesses of New Mexico, in order to improve our state's economy and public services.

Passed, Approved and Adopted this 31st day of August, 2006 at the Town of Taos, New Mexico.

2006 Resolutions Committee

New Mexico Municipal League Broadband Resolution: 2007

<u>NEW MATERIAL</u>

RESOLUTION NO. 2007-33

CONCERNING REGIONAL TELECOMMUNICATIONS DISTRICTS

Whereas, Broadband -- the delivery of "always on" Internet access with the ability to receive and transmit digital content and services at high speeds--is transforming the way we live, learn, work and play; and

Whereas, in many parts of New Mexico, especially rural and remote areas, geographical isolation and low population density make the cost of upgrading existing infrastructure to broadband capability unprofitable for the private sector; and

Whereas, there is little chance of broadband services being offered by private competitors at affordable prices to many New Mexicans in the foreseeable future; and

Whereas, the lack of broadband access and literacy limits the economic competitiveness and educational and cultural development for many New Mexicans; and

Whereas, new technologies and approaches to local broadband services are being deployed by a number of local governments and regional entities in other states; and

Whereas, the lack of local technical and financial resources is a significant barrier to development of alternative means of deploying broadband to underserved and underserved communities; and

Whereas, creating regional organizations such as Regional Transportation Districts has proven the value of cooperation, resource sharing, and coordination across local governmental boundaries to benefit New Mexicans.

Now, Therefore, Be It Resolved that the New Mexico Municipal League requests that the legislature allocate funds for a study by the Public Regulatory Commission (PRC) to analyze structural alternatives, powers and duties, and the potential benefits of creating Regional Telecommunications Districts in the state of New Mexico; and

Be It Further Resolved that the study also addresses technical approaches, policy and regulatory issues, and resource requirements likely to be encountered by Regional Telecommunications Districts created to provide universally available broadband access at competitive prices to New Mexicans.

Passed, Approved and Adopted this 30th day of August, 2007 at the City of Las Cruces, New Mexico.

2007 PIC Committee Priority: HIGH #3

Institute for Local Self Reliance: Cover Page

Localizing the
Internet:
Five Ways Public
Ownership
Solves the U.S.
Broadband
Problem

Becca Vargo Daggett
Institute for Local Self-Reliance
January 2007

*A publication of the New Rules Project
of the Institute for Local Self-Reliance*

ILSR

Institute for Local Self Reliance: Broadband Executive Summary

Executive Summary

Local governments have taken the lead in U.S. broadband policy. Hundreds of communities of all sizes are making decisions about how to best deliver universal, affordable access to high-speed information networks. Many are offered seemingly attractive arrangements with no upfront cost to the city. They do themselves and their households and businesses a disservice if they do not seriously explore the costs and benefits of a publicly owned network.

In this report, we highlight five arguments for public ownership.

1. High-speed information networks are essential public infrastructure.

Just as high quality road systems are needed to transport people and goods, high quality wired and wireless networks are needed to transport information. Public ownership of the physical network does not necessarily mean the city either manages the network or provides services. Cities own roads, but they do not operate freight companies or deliver pizzas.

Information networks are technologically sophisticated and the technologies involved are rapidly evolving. However, fiber optic cables are to this century what copper wires were to the last, and their capacity is essentially unlimited. While wireless networks are experiencing rapid advances, the initial investment is so low and the payback period so short that rapid upgrades are part of both private and public business plans.

2. Public ownership ensures competition.

A publicly owned, open access network can be open to all service providers on the same terms, thereby encouraging the entry of new service providers. Customers can choose broadband service providers according to the combination of price, speed and service that fits their needs. This is particularly important given that consolidation in the telecommunications industry and a hands-off policy by the federal government have combined to lessen competition among private suppliers.

Cities establishing new, privately owned citywide networks can require the owner to allow fair access. But it is unclear whether these contractual obligations will be enforceable in the future.

3. Publicly owned networks can generate significant revenue.

Telecommunications networks are different from traditional public works like roads because they can be self-financing both in terms of initial construction costs and ongoing upgrades. They can also generate revenue for local government, reduce the cost of government services, or keep more money in residents' pockets with lower prices.

4. Public ownership can ensure universal access.

Publicly owned road, water and sewer, and sidewalk networks connect all households without discrimination. All have access to the same services, though they may purchase different amounts. Private companies, on the other hand, have incentives to upgrade their networks only where it will be the most profitable.

5. Public ownership can ensure non-discriminatory networks.

With publicly owned networks, customers can be sure that any traffic management mechanisms are necessary and not simply to improve profitability. Communities can insist on neutrality from any service provider that uses the network. Or, if the market is large enough to support multiple service providers, a publicly owned network can leave neutrality to the market, knowing that unhappy customers can easily change service providers.