SACRED WIND COMMUNICATIONS, INC.

U.S. Senate Committee on Commerce, Science & Transportation

Closing the Digital Divide: Connecting Native Nations & Communities to the 21st Century

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April 5, 2011

Sacred Wind Communications is a private rural telecommunications company that was formed in 2004 to resolve the digital divide on the Navajo Reservation in New Mexico. We were created solely and simply to change a telecommunications formula that had not succeeded in reaching Navajo homes over the past 7 decades. That formula, still applied on other parts of the Navajo Reservation and on many tribal and other rural lands across our country can be described as follows:

The wrong company, using the wrong technology, lacking adequate resources, is required to serve the most costly areas of the country. Or, algebraically: X+Y+Z = F-

1. The company: A non-rural national or regional company, with bigger, more profitable markets elsewhere, will usually avoid too much attention to high-cost, low-return areas;
2. The technology: Urban network (and marketing) solutions are applied in cookie cutter fashion to geographically and demographically diverse areas;
3. The resources: With the more remote rural areas included in a larger telecom company's rate base, the telecom company does not fully qualify for the federal programs that support development of infrastructure in those remote areas.

For example, in 2004 there were five local telecom companies that provided basic telephone services to portions of the Navajo Nation, an area the size of West Virginia:

- All were owned by an out-of-state company whose most unprofitable area, likely, was the Navajo area they served;
- All were copper landline-oriented in their solutions approach, which ran afoul of the tribe's sensitivities to land preservation and to the BIA's rights of way process;
- None owned and operated a mobile wireless affiliate, which prevented them from seeking service alternatives.

The result for the Navajos was, and is, some of the lowest telecommunications availability in the country, on par with parts of Africa.

"Localize" service delivery

Sacred Wind acquired the "last mile" assets of one of those companies in 2006 and secured a $70 Million loan from the USDA's Rural Utilities Service. At the time of acquisition, only 26% of our customers had access to basic telephone service and 1% of those, those living on the border with a nearby town, had access to broadband Internet service.

Despite the U.S. Census Bureau's data showing that over 50% of the Navajo households in this area were below the national poverty level, only 1% of our customers were participating in the

federal Tribal Lifeline Program, a low income discount program, when we started. Part of the reason for this, we discovered, was that the Navajo tribal members living on the reservation shared the same telephone prefix numbers with the nontribal people living in nearby towns. Thus, the phone company's employees could not easily identify a tribal resident from a nontribal resident. Another reason, though, for this omission can be attributed to the local phone company's out-of-town ownership - it's just too costly for them to focus on a high maintenance, low return customer base.

The stories we hear about the elderly, without access to basic, let alone broadband, telecommunications services, surviving alone for 3 days with a broken leg or hemorrhaging as a result of a feral dog attack are not exaggerated. Such tragedies occur regularly in our remote areas. And, our intuitive assumptions that broadband will benefit tribal and other rural people to the same degree that urban populations are benefitted by broadband are borne out in the successes of tribally-oriented companies. Sacred Wind, for example, introduced the very first broadband link to a Navajo community in northern New Mexico and concurrently, under the auspices of an USDA-RUS internet training grant, established the very first Personal Computer (PC) and Internet training center in that unserved area. The center was visited by over 4,000 people in a two-year period and was declared by the RUS to be one of their top success stories. We saw people applying for jobs online, we saw children using the Internet for academic research, and, one of the most popular uses of the Internet, we heard from many people who were able for the first time to email and send photos to their family members in Iraq and Afghanistan. One young girl brought into the center a report she wrote for her class – it was the very first "A" she ever received. Such was the demand for selling Navajo handcrafts online, we developed an arts and crafts website for the community and witnessed that the artisans were able to sell their handcrafts for about 3 times what they would receive from the local trading posts.

Following that model, Sacred Wind provided PC and Internet training to another Navajo community just prior to our rolling out broadband service in their areas. After an 8-month trial period, 64% of our customers were still subscribing to Internet services, though the majority at speeds under 768 Kbps. Nonetheless, we have experienced throughout our service territory an increase in our broadband subscriptions of over 100% just in the last year.

Our experiences at the Internet training center led us to understand, too, that, in order to create a broadband service even more attractive to our customers, we had to develop a product that carried some cultural significance with it. It was not enough to advertise broadband service by a rate of speed and assume that our customers would realize the worth of that speed. Sacred Wind has designed, in collaboration with Navajo customers and Navajo government employees, a broadband service that offers ready access to Navajo history, to Navajo traditions, to modern

preventative medical advice and traditional medicines, and to governmental programs. Just recently we signed an agreement with a Navajo language revival group to include, as a cornerstone in our service and integrated into our higher capacity broadband packages, Rosetta Stone's Navajo Language online instruction. This is the most comprehensive, tribally focused broadband product available on Navajo lands today.

Sacred Wind is unique in that we are not a tribally-owned company, but in all ways our focus is tribal. We hire and train mostly Navajo and other tribal individuals, a number of whom are Army, Navy, and Marine veterans who bring with them well developed technical skills and a solid work ethic. We have designed a fully Internet Protocol (IP)-based network tailor made for our geography: a robust fixed wireless tower infrastructure and fiber optic and copper landline network that now can reach over 60 percent of the unserved homes in our territory with both basic voice services and broadband. The remaining 40 percent will be reachable with the further installation of one or more relay poles from our main towers, a final stage that should be completed by 2013. Using the most efficient technology for a geographically challenging area, the company has increased basic telecommunications availability from 26 percent to 60 percent in four (4) years and broadband availability from 1 percent of its landline-served customers to 99 percent, and to 100 percent broadband availability to its fixed wireless-served customers.

The 9 telecommunications companies today that are owned by the tribe they serve have similar success stories and, along with Sacred Wind, testify to the value of local ownership and local focus of a community's telecom provider. But, even local ownership has limitations when it comes to seeking land use authorization on federally managed lands.

Amend federal rights of way practices

A second chief factor in delivering adequate telecom services to tribal areas involves the ability to use federal lands for infrastructure development. Unlike the permitting processes in place for installing copper wire, fiber optic cable or telecommunications towers within most municipal or county boundaries, the permitting processes on federally managed lands often serve as an impediment to growth. In fact, the four-year achievements of Sacred Wind described above could have been accomplished in two (2) years had a more efficient permitting process been made available.

On Navajo–occupied lands in New Mexico Sacred Wind has applied for rights of way authorizations from the Navajo Nation, from the Bureau of Indian Affairs, the Bureau of Land Management, the U.S. Forest Service, the county and the state. No process is as difficult as at the Bureau of Indian Affairs. Generally, it takes Sacred Wind two (2) years to receive authorization to place any infrastructure – be it a communications tower or a copper or fiber line

– on tribal land or allotted lands. The Navajo Nation manages a professional and effective land use review operation, which includes a land department review of the network plan, an environmental office review, an historical preservation office review, fish & wildlife, land appraisal, and tribal department of justice review. After all that, the same documentation is then submitted to the BIA.

There is no distinction in the land use review process between a communications tower or fiber optic cable that is to serve only the Navajo people and a gas pipeline that would traverse tribal lands to supply off-reservation communities.

In the most recent example of how the permitting process affects Sacred Wind's network development, we submitted 2 ½ years ago a request to attach a fiber optic cable along 11.6 miles of an electric pole line that has existed for over 30 years. That fiber route is needed to add capacity to our fixed wireless and copper infrastructure that serves over 500 customers. Because the fiber is to be attached to an existing pole line within an existing utility easement, we asked the BIA for a "categorical exclusion" from having to conduct a centerline survey and an archaeological and environmental assessment along the easement. We were told that, in order to qualify for the categorical exclusions to have such surveys and assessments waived, we were required to submit the centerline survey, archaeological and environmental assessments to demonstrate no possible harm to the easement! Such work cost us over $170,000; and the BIA appraised the easement for fee purposes to be over $100,000; and we're still waiting for a notice to proceed.

Coordinate federal government policymaking

Finally, a third factor, in part related to the second, that affects infrastructure development on tribal lands is the lack of coordination of assistance and policy among various government offices. With the U.S. Department of Agriculture's longtime leadership in helping to develop telecommunications and broadband infrastructures in rural areas, and the U.S. Department of Commerce's involvement in the Broadband Stimulus Program that stemmed from the American Recovery & Reinvestment Act, and the Federal Communications Commission's commitment to develop a National Broadband Plan that would also benefit rural and tribal areas, one would assume that the federal government speaks in unison in promoting the development of tribal and rural infrastructures. Contrarily though, it appears that the very model of rural telecommunications development is being torn apart. The local rural local exchange carriers (RLECs) – which include Sacred Wind and all tribally owned telecommunications carriers – are either handicapped in facing off their competition or are being threatened with a change in national telecommunications policy.

For example, the federal Universal Service Fund's (USF) support for rural carriers – even as it is being reformed as we speak – carries restrictions in the use of the RLECs' infrastructure that often penalize a company for the use of their networks for the provision of unregulated services. RLECs generally receive most of their USF support for provision of service along the "local loop" or last mile, and receive other forms of support for provision of interexchange services not associated with the local loop. Accordingly, when a company employs its infrastructure for broadband services to customers outside of its territory, or to deliver added capacity to others' cellular phone towers, or to even use its own fixed wireless communications towers for mobile wireless communications, the company can actually lose more money from USF support than it could gain from free markets. As the federal USF is being reformed, encouraging USF recipients to seek other sources of revenue could help sustain the company and the fund.

The FCC, too, has been hosting regional forums on ways to stimulate telecommunications infrastructural development on tribal lands. I believe they will conclude that local ownership is the answer. While there is a state regulatory and FCC process for a tribe or rural local exchange carrier to acquire a larger company's network, as the 9 telecom tribes and Sacred Wind have gone through, the process now involves seeking waivers from rules that have "frozen" further changes to forming new USF-supported territory. With the current USF program's future uncertain, moreover, few USF-qualified companies would risk any new rural acquisitions or service territory expansions until the economics of such expansions were known. As it is, many RLECs in this country, including tribally owned telcos and Sacred Wind, are concerned about the USF reform's impact on our ability to pay down our current construction loans.

Similarly, while the FCC schedules from time to time auctions for the sale of spectrum licenses for mobile and fixed wireless communications services, and offers small rural and tribal carriers a discount from the auction sale price, the licensed territories are not coincident with tribal lands or with a small RLEC's service territory. Such change in spectrum license allocation, while less favorable to the national or regional mobile wireless carriers, would make the bidding price and the use of the license more attractive to the smaller companies.

We RLECs indeed see ourselves caught in a policy war at the FCC that we may not be winning. As stated above, the locally owned rural carriers, among them all tribal telcos, have done a superlative job in building telecom networks in their areas. It is the national telecom companies that have fallen down in developing modern infrastructures in many of their rural service territories. These RLECs should be used as a model for further broadband development, but are threatened by the FCC's apparent predilection toward mobility. With the FCC's inclusion of mobile wireless carriers in the USF program, and the ultimate disbursement of over $1.5 Billion

annually from the fund to national and regional mobile wireless carriers, less support for the past decade has been made available to RLECs, the local companies. Much of the contention surrounding USF reform today revolves around the FCC's apparent abandonment of the RLEC-rural model in favor of a mobile carrier-national model. If this move toward mobility impacts RLECs as it portends to, rural employment, rural development, rural telecom service, and RLECs' debt service may be adversely affected.

This is not to say that mobile services development should not be encouraged in tribal and rural areas. It should be built around a "localized" model, though – one in which a tribe or RLEC would have opportunities to offer such alternative services to its customers either singly or in partnership with a larger carrier. But, as a policy matter, it certainly should not preempt "fixed" services to the home.

No single technology is appropriate for Sacred Wind's entire service territory where the distance between communities and the population density make landline deployment unaffordable, where the mountains and canyons within its territory, which separate hundreds of Navajo homes in small clusters many miles from each other, make mobile wireless communications unworkable in considerable parts of Navajo lands. Along flatter terrain, linked to communications towers that parallel a roadway, mobile wireless is appropriate. And, even satellite broadband has its place. All such alternative solutions should be made available to all Americans in as cost effective a manner as possible. [*To distinguish one wireless technology from another in geographically challenging areas, fixed wireless systems take the antenna (and the signal) to the home, while with mobile service the customer must travel from the home to seek the antenna (and the signal)*].

In either case of a mobile or satellite alternative for rural areas, the local RLEC with a fixed wireless infrastructure already in place offers the most viable solution: mobility can be added to the incumbent RLEC's infrastructure and the RLEC's technicians can be trained to service a satellite unit where the RLEC has partnered with a satellite company to offer such complementary services. The health of the RLEC is required in both cases.

To ensure that tribes are given the opportunity to influence their own telecommunications future, the federal government, through the Departments of Commerce and Agriculture and the FCC should coordinate to create more programs that would encourage RLECs to develop tribal-oriented systems, and to encourage tribes to own and operate their own systems, using all alternative telecommunications solutions to meet their needs. Many tribes will need your help.

There exist in New Mexico, for example, three major tribes and 19 Indian Pueblos with populations that range from a few hundred to many thousands. Most are poor and all but the Mescalero Apache Tribe and the segment of Navajo lands served by Sacred Wind, are served by national or regional carriers. If USF support systems remain intact and the regulatory environment would be open to it, we believe that the majority of those tribes could economically justify acquiring and owning their own telecom systems or by way of tribal consortia. Only by understanding how each tribe is served today can we reach conclusions as to how they best can be served tomorrow. Resources for such understanding are near at hand – talk to the tribes and seek council from the nearest RLEC.

Recommendations

Our recommendations to help tribes bridge the digital divide are:

1. Create and implement programs that encourage local ownership of telecom networks.
    a. Create FCC regulations that incent tribal or RLEC acquisitions.
    b. Revise FCC spectrum allocations and processes for tribal-specific spectrum use.
    c. Ensure that any FCC USF reform does not reduce tribal RLEC support.
2. Continue and expand telecommunications development plans for tribal lands that take advantage of the most appropriate technologies.
    a. Departments of Commerce and Agriculture should help tribes assess the viability of localizing telecom systems.
    b. Departments of Commerce and Agriculture should coordinate grant/loan projects that would incent tribal or local RLEC start-ups.
3. Remove land use impediments for tribal infrastructures.
    a. Departments of Commerce, Agriculture, Interior, FCC, and Homeland Security should coordinate land use policies that affect telecom infrastructures on federally managed lands.
    b. New land use policies should take into account a system's services to tribal members.
    c. Departments of Commerce and Interior should incent tribes to establish their own rights of way procedures and, where tribes have their own review operations in place, remove the federal government from the process.
    d. Change the federal utility easement application to include use of the easement by telecom utilities.
    e. Eliminate the archaeological & environmental study requirement on pole attachments on in-place pole lines.

   f. Eliminate the archaeological & environmental study requirement in an easement or on a site where such studies have already been conducted.

4. Continue and expand PC literacy and Internet training programs for tribal members.
   a. Establish and implement programs supporting the development of broadband content that reinforces tribal culture and values.

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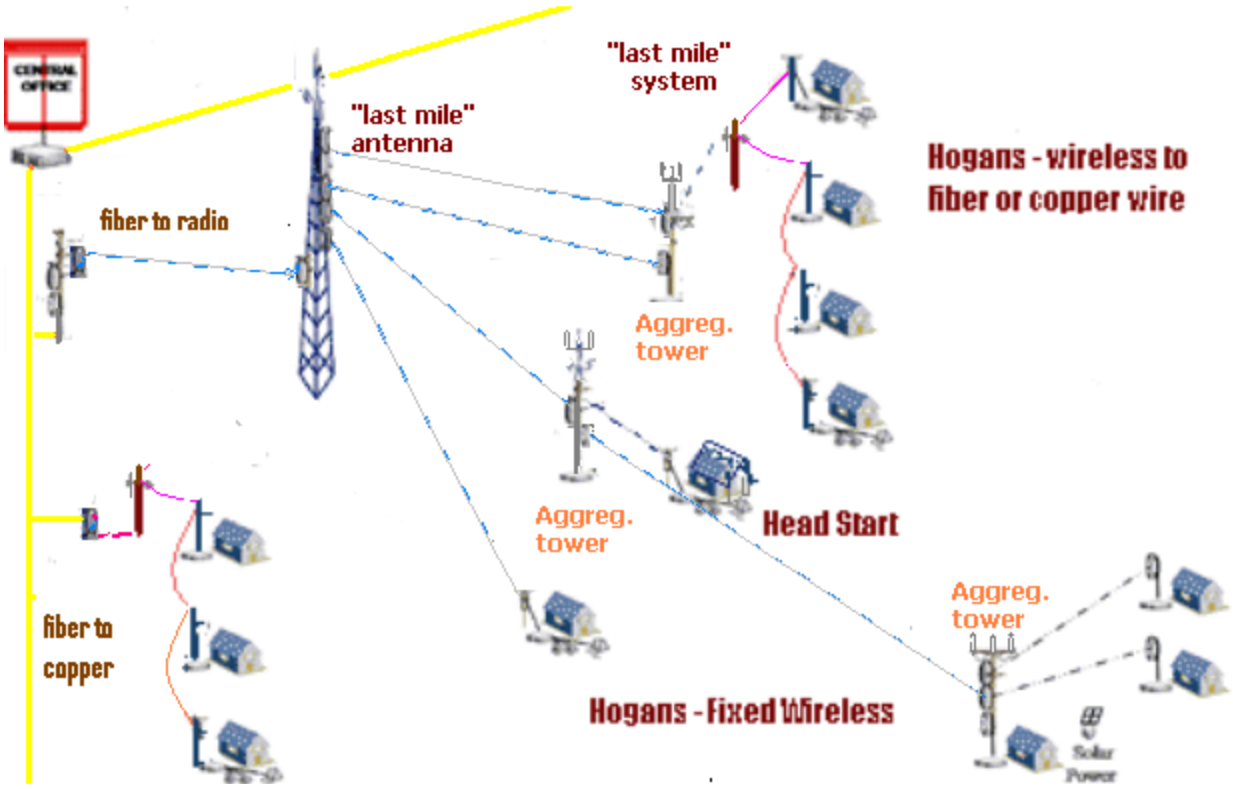
ATTACHMENT 1: CONFIGURATION OF FIXED WIRELESS TO COPPER LANDLINE NETWORK WITH FIBER OPTIC BACKBONE FOR CAPACITY. "DISTANCE FRIENDLY" & ECONOMICAL IN SERVING WIDE OR GEOGRAPHICALLY CHALLENGING UNSERVED TRIBAL AREAS.



ATTACHMENT 2: SACRED WIND'S INTERNET TRAINING FOR ROCK SPRINGS CHAPTER MEMBERS AND AT THE HUERFANO CHAPTER OF THE NAVAJO NATION, ENABLED BY AN USDA-RUS COMMUNITY CONNECT GRANT.

ATTACHMENT 3: FIXED WIRELESS ANTENNA ATTACHMENT ON THE HOME, WEST OF YATAHEY, NM.