Broadband in Indian Company
White Paper

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While it will take a long time before fiber to the home becomes ubiquitous across the United States, for Indian Tribes, it will take even longer. Tribal lands lack even basic telecommunications services, and fiber is almost non-existent. Considering that there are 564 federally recognized tribes in this country, and 300 tribal reservations, there are a lot of communities needing upgraded telecommunications services and that includes building new fiber networks. More than just networks, reservations are a great untapped opportunity to build new fiber to the home systems, leapfrogging tribal residents into the telecom age.

The need to improve telecommunications infrastructure in Indian Country is great. Not only do tribes need basic POTS lines, plain old telephone service, it has become more important than ever to build out fiber based telecommunications in order address such areas as education, healthcare, public safety, cultural heritage and economic development. It is critical that we recognize this need. As telecommunications professionals this can be both as an opportunity to grow our own businesses, but more importantly, an opportunity to improve the lives of our Indian neighbors.

Working with Indian tribes is a unique experience, not always an easy one for outsiders. What may make sense in the typical business environment may not apply in Indian Country. But with the correct approach, patience and cultural sensitivity, the opportunities are significant for companies and service providers to bring fiber and advanced telecommunications infrastructure to Indian Country.

THE TRIBAL ENVIRONMENT

> *There are 4.3 million Native Americans in the United States, and 562 federally recognized Native Nations. These tribes are all inherently sovereign with their own political and Tribal structures. More than 66 million acres of Tribal lands are held in trust or trust-restricted status by the United States on behalf of Native peoples and their governments….*
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> From *Comments filed by the National Congress of American Indians (NCAI) and Native Public Media (NPM with the FCC Docket No. 90-51, June 8, 2008*

Until 1871, relationships with individual American Indian nations were conducted largely through the treaty-making process which recognized and established individual rights, benefits, and conditions. These treaty-making tribes agreed to cede millions of acres of their homelands to the United States in exchange for accepting protection. Like other treaty

obligations of the United States, Indian treaties were considered to be "the supreme law of the land," and they were the foundation upon which federal Indian law and the federal Indian trust relationship was based. A guiding principal has been based on U. S. Supreme Court Chief Justice John Marshall who said that "*tribes possess a nationhood status and retain inherent powers of self-government.*" This concept of self government and tribal sovereignty is one that is a major tenet of the tribal relationship between tribal governments and outside vendors.

In addition, the federal Indian trust responsibility is a legal obligation under which the United States "has charged itself with moral obligations of the highest responsibility and trust" toward Indian tribes (Seminole Nation v. United States, 1942). Over the years, the trust doctrine has been at the center of numerous other Supreme Court cases, making it one of the most important principles in federal Indian law. According to the Bureau of Indian Affairs (BIA), "this federal Indian trust responsibility is also a legally enforceable fiduciary obligation on the part of the United States to protect tribal treaty rights, lands, assets, and resources, as well as a duty to carry out the mandates of federal law with respect to American Indian and Alaska Native tribes and villages… It entails legal duties, moral obligations, and the fulfillment of understandings and expectations that have arisen over the entire course of the relationship between the United States and the federally recognized tribes."

Federally recognized tribes have certain inherent rights of self-government (i.e., tribal sovereignty) and are entitled to receive certain federal benefits, services, and protections because of their special relationship with the United States. According to the BIA, there are presently 564 federally recognized American Indian and Alaska Native tribes and villages.

In addition, each tribe has a tribal government that is typically made up of a tribal council. Each council determines the number and membership make up of the council. This is similar to your local city council, with local commissioners, except that tribal council represents a sovereign nation. Some of the councils include the tribal chiefs as well as a Secretary-Treasurer to be the main executive of the Tribe. Tribal business is done through a process of resolutions. Each decision that is made by a staff person will be brought to tribal council for a resolution that will bless the decision to go forward. No contract can be made without such a resolution. The tribal staff person who is making a proposal may invite the outside vendor/contractor to come to a tribal council meeting to present the proposal to the Tribal Council. If you do get invited to such a meeting, it is important to recognize that after you make your presentation, it is proper to sit quietly and await a tribal discussion and vote on the resolution. Often, the process includes long times of silence. This is often the tribal way of doing business.

It is therefore important to recognize that each tribe is a sovereign nation. Each tribe has its own, history, language, culture, tribal laws, rules, and in a sense, its own personality. This can make working with tribes challenging since each tribe has their own government, commercial codes, tribal laws and tribal processes. In addition, there are additional rules and processes that have been imposed on tribes by the BIA. All of this adds up to making the

working relationship potentially more difficult than any other working relationship that an outside vendor may be used to having with a customer or client.

TELECOMMUNICATIONS IN INDIAN COUNTRY

Telecommunications infrastructure on Indian Reservations presents its own set of challenges. Because many reservations cover large land-areas with sparse populations and businesses, it has been difficult for traditional telecommunications providers to justify capital investment. There is only approximately 50-70% telecom penetration on tribal lands (numbers vary with different reports). Broadband is largely absent and there are few fiber on and off ramps on the reservation. Often a fiber will run through the reservation, or along a major roadway, but there is not a point of presence on the actual reservation.

"Tribal communities have the worst telecom service in America," according to Derek White, President of the National Tribal Telephone Association in a presentation he made to OPASCO in 2008. According to the NTTA, there is only "50-70% telecom penetration in America's 564 federally recognized tribes, as compared 98% penetration throughout the rest of America." Understandably these statistics are not certain, but in any case, the point is that Indian Reservations are largely underserved when it comes to providing telephone service to native populations.

The Telecom Act of 1934 mandated as public policy that a funding mechanism be established to encourage the development of telephone service throughout the United States. This fund would be created to help to equalize the cost of providing telephone service in rural areas as in urban/suburban areas where density made the cost of building new telephone networks a lot less expensive. By charging all telephone users a small fee every month, the Universal Service Fund was created that would then pay rural providers a fee based on the actual cost of provisioning the high cost, rural area networks. The USF fund still exists and rural companies who participate still receive significant amounts of money to reinvest in rural America. This was a great public policy that changed the telecom landscape of America, throughout America, except in Indian Country.

Part of the problem is that the companies that serve tribal Reservations are not the small rural companies, but are the remnants of the Bell network. In 1984, ATT was divided into regional Bell Operating Companies, (RBOCs) that were to serve the areas of the country assigned to each company. Tribes were mostly left to the devices of these RBOCs who realized that these rural lands were expensive to build and maintain and would service only a few people. Unlike the rural independent local exchange companies (ILECs), these RBOCs were not considered rural for the purpose of the USF funding mechanism. They were therefore not eligible for the large subsidies that the rural companies would get, making serving the rural tribal lands not only not profitable, but unable to be subsidized. Add this to the greater poverty and limited income of tribal members on the Reservations, as well as the general

negative societal attitudes toward Indians, Reservations were ignored. Telephone service was limited to the core areas of Reservations, without reaching out to the population living throughout the tribal lands.

Without basic telephone service on the Reservations throughout the United States, it is clear that Broadband is largely absent as well. Not only is there lack of fiber, (or even any wireless broadband,) even when fiber traverses a Reservation, there are few fiber on and off ramps to allow access to that fiber. As in the case with the Confederated Tribes of Warm Springs Reservation, fiber crosses the Reservation, but access is unavailable to the Tribes. In addition, tribes often signed long term contracts with companies to allow them to put use Reservation rights-of-way to provision long haul fiber. However, without understanding the value of the fiber, most of these contracts don't give the Tribes substantial user fees, nor do they have provisions for any kind of POP to access the fiber for future use, nor any other quid-pro-quo that would have adequately compensated them for the use of their Tribal lands.

In addition, unlike the cities and municipalities that granted rights-of-way agreements to telecom companies, the Tribes did not have lawyers or other telecom people on staff that negotiated for such things as dark fiber, which many cities have done and now use for their own city broadband networks. Companies took advantage of this lack of knowledge. They knew that this fiber was a valuable asset that they did not intend to share with the Tribes. Yet Tribes granted them these companies access to use their lands for their corporate benefit.

Unfortunately this is the state of the telecommunications for most tribal nations today. Tribes are desperate for better telecommunications services. As they have begun to take control of their economic destiny, some through the growth of casinos and the money that they have generated, others through other industries, there is a growing awareness that telecommunications, and fiber/broadband access in particular, is the future. It is the future to help bring better education through distance learning; better health care through growing telemedicine endeavors; upgrades to their public safety radio networks as fiber is necessary to connect towers to allow for greater radio capacity and services; entertainment, because Tribal kids and teens want what all their non-tribal peers want – games, movies and their favorite music; but most of all, broadband access for economic development, creating new businesses and jobs on the reservation.

However, all is not bad news. The National Tribal Telephone Association represents the interests of the 8 tribally owned telephone companies, and other associated members in comments to the FCC and other activities. The FCC Tribal Initiative has taken a series of steps, through regulatory action, consumer information and tribal outreach, to address the lack of telecommunications as more reservations have begun the process of building out tribal fiber networks to bring broadband to reservations. Described by the FCC, this initiative is a "comprehensive program that seeks to promote understanding, cooperation, and trust among American Indian Tribes and Alaska Native Villages, Tribal Organizations, the FCC and other government agencies, and the telecommunications industry." Through national meetings and other outreach programs, the Tribal Liaison, Shana Goldberg Barehand, organizes programs and round tables to help educate and connect parties to make this happen.

THE WARM SPRINGS EXPERIENCE – A CASE STUDY

The Confederated Tribes of Warm Springs is similar to other well-established tribes in the US. The Confederation of three tribes, the Warm Springs, Wascos and Piutes sits on 1000 Square miles in Central Oregon with approximately 4,500 tribal members. It is one of the treaty tribes of 1855. Since 1938, tribal members have conducted business through their constituted government, the Confederated Tribes of the Warm Springs Reservation of Oregon, which is governed by a Tribal Council. The role of the Council includes all legislative, executive and judicial responsibilities, including setting policy and appointing key personnel in the Tribal government and Tribal enterprises.

Telecommunications Planning

Step 1: Assessment

We started the process by doing a Needs Assessment, which indicated pretty quickly that the Reservation lacked most telecommunications services. This process found that like most other tribes, the Confederated Tribes of Warm Springs has suffered historically from poor telecommunications capabilities. Telephone service on the reservation has been limited and of low quality due to the poor condition of telephone wiring and the lack of attention from the incumbent carrier. Basic phone service is not available in parts of the reservation. Estimates indicate that only about 65% of residents have service. Although there is some broadband internet access, it is very limited in availability.

Likewise, we found that public safety radio capabilities were lacking. Less than 40% of the reservation had reliable two way radio coverage. This means that communications with first-responders, such as police and fire was unreliable in many parts of the reservation, greatly hampering search and rescue efforts as well as fire fighting capabilities. Even in the main population center, the Warm Springs Agency area, police and fire had a difficult time receiving radio signals within buildings, due to the distance from the main transmitting site, Eagle Butte.

Step 2: Priorities

Following the Needs Assessment, we then did a more in-depth Telecommunications Strategic Plan. Here we took the basic information and further developed the issues, for instance, what would need to happen to better upgrade the Public Safety Radio system, and prioritized what needed to be done and in what order. This plan was adopted by the Council in 2006. It indicated three priorities that the Tribes need to focus their energies to improve over the coming years to bring the Tribes up to acceptable levels of telecommunications.

These include:

- Public Safety Radio communications
- Telephone service
    - Improvement to basic telephone

    - New Broadband capabilities
- Cell Service

Prioritizing needs is a critical step for a tribe since there are so many telecom issues on the Reservation, and it is impossible to address all needs at one time. By prioritizing needs, it also keeps people focused and on track. This does not preclude working on more than one activity, or realizing that in fact some of the needs intersect, so that by dealing with one priority, another issue may be addressed as well. As you can see by what we did at Warm Springs, the priorities were really a guide, but we did many things in tandem. Prioritizing becomes a great consensus building tool to work with the key stakeholders, ensuring that everyone has input and buys into the priorities. This becomes critical as the process continues.

To do this at Warm Springs, we created a new group, the Telecom Steering Group (TSG) that began to meet bi-monthly, to discuss the process, needs and what possible outcomes they could expect. Members of this group, who had never met professionally as a group before to discuss telecommunications, included the Police and Public Safety, Fire Department, Administration, KWSO (the tribal radio station), the Planning Department, Public Utilities, Bureau of Indian Affairs Fire Management, Indian Health Service, Natural Resources, the IT group and others. Having this group meet over the years, we have solved problems that were facing either individual members or the Reservation as a whole, which without the group, never would have been brought to attention except when it became a crisis.

Step 3: Implementation

While each step is in a sense on-going, with resolutions going to Tribal Council for approval along the way, the following is what we did at Warm Springs to implement the strategic plan.

1. <u>Community Connect – Broadband – Grant</u>
   The Rural Utility Service (RUS) of the US Department of Agriculture (USDA) is a great source of funding for rural telecommunications. They have a number of programs including grants and loans. The first grant that we received for the Tribes was the RUS Community Connect grant which was to bring broadband onto the Reservation. With the funding, we microwaved a link from a nearby community to the administration building, created a small fiber network connecting near-by tribal facilities, and then used Motorola Canopy to bring back the broadband to a newly created community building, now the Teepee Café, and purchased 24 computers. This café, which is open to everyone, is the only broadband for most residents.

2. <u>Public Safety Radio</u>
   Over the past two years, we have received four Homeland Security grants, which are administered through the state of Oregon, Emergency Management. (Each state receives these federal funds.) We determined a phased approach to build out the much needed network, and have been slowly using these dollars to conceptually engineer and design to expand public safety radio, then building out the network, replacing old equipment, and

expanding capabilities with new equipment. These grants have been used to purchase new dispatch console, repeaters and mobile units. We are also currently in the process of purchasing and installing the first new tower. We also securing additional radio spectrum to separate the police and fire frequencies, which currently operate on the same frequency

3. Telephone Project

Early on in the planning stage we recognized that telephone service is critical to building out the telecommunications services, not only for the landline service, but also as a backbone for new broadband services. To do this, we received grants to research the project, and to convince the tribe it is what they need to do. Three planning grants have been received to date, including from RUS, the Rural Business Opportunity Grant (RBOG) and the Rural Business Enterprise Grant (RBEG). We also received a Technical Assistance grant from the Economic Administration (EDA). These grants have been used for planning and engineering purposes. Part of these funds also went to a study we did on what other Tribal telecom companies were doing. Out of the eight tribal companies, we visited five, and learned first hand what they did, how they did it. The tribal telecoms were generous and forthcoming with their information on the pitfalls, difficulties and benefits of creating a tribal telephone company.

In December, 2008, a delegation from the Confederated Tribes of Warm Springs, including business leaders and Tribal Council members, took a trip to Washington, DC, to meet with FCC, RUS and USAC staff. This was an eye-opening trip for both the tribal leadership and the DC staff.
RUS stressed importance of building fiber to the home. RUS has low interest loans for rural telecoms as well as broadband loans. RUS would like to see fiber to home, as well as underground fiber, if possible.

The other big consideration for Warm Springs, is the option for building out a telecom company as an ILEC or CLEC, the Incumbent or Competitive phone provider. There are a lot of issues that we have considered. Universal Service Funds are available in greater amounts for the ILEC, essentially the carrier of last resort. The funding amounts are considerable. RUS has loans that are available to build out the network at very low interest rates. The USF funds could be used to pay back RUS for the loans.

However, there is one big hurdle, affectionately called the "Parent Trap." For a tribe to become the ILEC on its reservation, and get the Universal Service funding, it must be designated as a high cost support area. Most rural areas are high cost support areas, but the big telephone companies, such as Qwest, are not designated as high cost support companies since they primarily service urban and suburban communities. To receive the high cost designation, the new Telco must receive a waiver from the FCC. This is not an easy process, and in fact, to date, only Tribal Telcos have received such a waiver.

Broadband Stimulus dollars – Warm Springs has applied for $4.8 million from both RUS (BIP) and NTIA (BTOP) to build a broadband network throughout reservation. We had intended to apply for more funding, but could not build a business case for a larger investment. Like all applicants, we have no idea if we will receive any money, but we

will continue to apply for broadband stimulus dollars as long as the process allows. As part of this process, although really as part of the general planning/implementation of the network, we had issued an RFQ to hire an engineer. As the Stimulus grant project for stage two requires detailed engineering plans, we recently hired an engineering firm to design the network as applied in broadband grant, but also for future designing of an upgraded telecom network. The company we chose has significant engineering experience, but also experience with RUS funding issues as well as tribal experience.

4. Cell phone

   With limited cell service throughout the reservation, we also started outreach to cell providers. Cell service is a critical service since the public safety radio system is so limited, emergency responders rely on their cell service, despite poor coverage.

   Verizon was interested in a presence on reservation as well as additional locations in central Oregon. We had previously defined the Reservation service area priorities, which included bringing service to the Kah Nee Ta Resort, which was woefully underserved. This lack of cell service affected the ability of the resort to attract business meetings and conferences to the Reservation. As part of the process, we were able to secure temporary installations while agreements for permanent agreements were being negotiated. We secured the right that all future public safety radio equipment would be able to be on the Verizon towers without additional cost to the Tribes. Presently we are working with Verizon to build a third tower on the north end of the Reservation, which would extend service through a greater part of the Reservation, but also give Verizon customers access to cell service as they travel from Portland to central Oregon (Bend) on Highway 26, the major route through the state that traverses the Reservation.

HELPING TRIBAL GOVERNMENTS EXPAND TELECOMMUNICATIONS

As you can see, this is not a simple process. You can not walk into a room and expect to walk out with a signed agreement. In addition to everything mentioned, the Tribal Council process of approving of contracts is another wrinkle that is common to all tribes, and can be frustrating if you do not factor that into to your business dealings with the tribes. But since the needs are great, the ability to have a long term working relationship is also great.

Here are a few ideas on how to help tribes build out new telecommunications networks.

Implementation must happen with a phased approach. All problems can not be solved ar once, as much as you might like. Bite off manageable chunks of projects, rather than try to solve everything at once. This is both because of the complexity of the projects as well as the cost. For instance, one major telecom provider did a study to upgrade the Public Safety radio, which was a good proposal, but would have cost the Tribes $5 million. This was so unrealistic, but it did get the Tribes excited about the process. It couldn't be done. If you are asked for such a proposal, show how work can be done in stages. It might not be what you

want, but it is probably the only realistic way for such networks to be built. Plus, you get a long time client.

Look for partnerships. When we began to address the problem of building out the public safety radio, we knew we were going to have to build out towers, since there was only one on the 1000 square mile reservation. We felt that we could get money for some towers, but thought also about partnerships with cell providers that would like access to the Reservation to build out their network throughout central Oregon. We found that partner with Verizon, who recently installed two towers on the Reservation and is planning to put up a third.

Find money for the projects. Most Tribes have little spare money for building out telecommunications. While casino tribes may have funds, most tribes are poor and have so many social needs that needed funding, including health care, education and jobs, that telecommunications fall way down the ladder of funding priorities. However, there is money to be gotten for funding networks. While most tribes have grant writers, as they are very familiar with the grant writing process, because of the technical nature of the grants to fund telecommunications, you may need to be able to help them apply for this money.

Where is money available? First of all, there are the new Obama stimulus dollars. Since Reservations are typically considered rural, you can apply to both RUS and NTIA.

You need a tribal champion to promote telecom development. There are leaders on every reservation who understand the need for new telecommunications networks. Find one who wants to build out the reservation. If not, you will not get far. Working with tribes means navigating the tribal process, getting tribal resolutions passed, agreements made. Without a tribal leader that is your "pot stirrer," you will have a hard time getting your service or product sold. Remember also, there is a long time horizon for decision making. Tribes are sovereign nations that pride themselves on self-determination. Work within those boundaries and respect their culture and ways of working, and you will be able to be successful working with tribes.

CONCLUSION

Working with Tribes is a "Greenfield Opportunity" to increase your business, do good work and have an impact with your business on the lives of people who really need your services. To be successful, you must develop an incremental strategy as you work with Indian tribes. Start small and grow the opportunity over time. Above all, develop relationships with tribal leaders and business leaders, although it may be difficult at first for them to trust you. After all, they have had many people not keep their promises to them. Keep your word and your commitments, and not only will you find a world of really wonderful people, but a great opportunity for you, your business and the tribes that you will serve.