

Testimony
Of
Kade L. Twist Consulting
Before the
United States Senate Committee on Indian Affairs
On the Status of Telecommunications
in Indian Country
May 22, 2003
SRB 485

Kade L. Twist Consulting
30 West Louis Way
Tempe, AZ 85284
Phone: 480.777.0037
Fax: 480.777.0047
Mobile: 480.577.0627
[**Twist@NativeNetworking.org**](mailto:Twist@NativeNetworking.org)

Testimony of
Kade L. Twist Consulting
Before the United States Senate Committee on Indian Affairs
On the Status of Telecommunications in Indian Country
May 22, 2003

Introduction

Chairman Campbell, Vice Chairman Inouye, and distinguished Members of the Committee, thank you for inviting me to testify before the Committee on Indian Affairs. It is an honor to be here with you today. I would like to express my sincere appreciation for your continuing efforts to improve the status of telecommunications in Indian Country.

My name is Kade L. Twist. I am a member of the Cherokee Nation and President of Kade L. Twist Consulting. I have been conducting research on the subject of telecommunications in Indian Country for the past year as a consultant to the Ford Foundation.

In my research I have worked with over 30 American Indian executives and practitioners in the field of tribal telecommunications. My research has also benefited from high level tribal meetings with FCC Commissioners and FCC bureau directors, Senate Indian Affairs Committee meetings, National Congress of American Indians Telecommunications Subcommittee meetings and National Tribal Telecommunications Association meetings.

Over the course of my research one significant finding has emerged: providing cutting edge equipment and infrastructure is not a solution, in and of itself, for the development needs of American Indian telecommunications. ***Equipment and infrastructure are merely tools. They are only effective when they are applied in a manner that provides for—and advances—the social, civic and cultural needs of respective Indian communities.***

Even if every mile of Indian Country were wired the majority of tribes would not have the knowledge, expertise and organizational capacity to effectively utilize, manage and sustain their infrastructure. Telecommunications systems are expensive to sustain and require a large number of staff with wide array of skill sets to keep them up and running. Furthermore, it requires a great deal of experience, expertise, creativity, community education and community organizing to utilize telecommunications systems in a manner that compliments the cultural will of tribal people while meeting their social and civic needs.

It is critical for Native telecommunications stakeholders to look beyond immediate infrastructure and equipment deficiencies. Instead, stakeholders should evaluate how the deployment of infrastructure and equipment can complement larger community development, nation building, social service, education and cultural preservation

Testimony of
Kade L. Twist Consulting
Before the United States Senate Committee on Indian Affairs
On the Status of Telecommunications in Indian Country
May 22, 2003

strategies. Telecommunications development must be driven by practical applications that benefit the largest number of community members possible.

Furthermore, it is also critical for stakeholders to pay close attention to capacity building and sustainability issues. *Indians have just begun the processes of making telecommunications fit their respective cultural and social wills.* Therefore, Indian Nations have an intense need for planning, community organizing, training, technical assistance, capacity building assistance and the recruitment of talent with a diversity of skill-sets. Indian Nations must develop their organizational infrastructures, regulatory codes and regulatory bodies to ensure the appropriate development and sustainability of telecommunications endeavors on tribal lands, as well as, ensuring the consumer rights of their respective tribal members.

Background

Telecommunications in Indian Country is severely underdeveloped, underfunded, misunderstood and poorly utilized. According to the FCC's most recent data, which is based upon the 2000 Census, only 67.9% of American Indian households on tribal lands have telephone service—while 96% of the rest of America have telephone service. Only 10% have household Internet access.¹ Much like media, telecommunications has taken a backseat to tribal needs with higher priorities, such as providing food, basic social services, healthcare and education. Furthermore, barriers such as geographic isolation, rugged and diverse terrain, low population densities and the lack of existing telecommunications infrastructure make the development of telecommunications even more difficult. The following are brief descriptions of the structural barriers to tribal telecommunications development:

- **Lack of economic development:** The lack of tribal and private enterprises make it difficult to provide a compelling (and sustainable) business case for private sector investment.
- **Lack of existing infrastructure:** Efforts to deploy infrastructure are very expensive because there isn't a foundation to build on. And quite often, infrastructure that does

¹ U.S. Department of Commerce, Economic Development Agency, *Assessment of Technology Infrastructure in Native Communities*, October 1999.

Testimony of
Kade L. Twist Consulting
Before the United States Senate Committee on Indian Affairs
On the Status of Telecommunications in Indian Country
May 22, 2003

exist is not capable of being used because its old, in poor condition, has insufficient bandwidth capacity, and not worth the investment of upgrading.

- **Geographic isolation, low population densities and rugged terrain:** These characteristics, especially when combined, substantially raise the cost of developing and sustaining technology infrastructure.

Fortunately, the need to develop and sustain telecommunications infrastructure is finally beginning to appear on the radar screen of tribal decision makers. Elected tribal leaders have begun to understand that telecommunications, if effectively utilized, has the potential to enhance and expand educational and healthcare opportunities, expedite the delivery of public services, support the provision of enhanced emergency services, create employment opportunities and facilitate economic development.

There is a urgency among leaders in Indian Country to simultaneously build-out telecommunications infrastructure, deploy new services and applications, and gain a sufficient base of knowledge of these technologies so that tribal leaders can maximize their positive impacts (e.g., economic development, healthcare, education, etc.) and minimize their negative impacts (e.g., assimilation, consumerism, cultural commodification, etc.) on community members.

Yet, tribal leaders are still grappling with the question of how to utilize telecommunications effectively. And they are also struggling to find ways to fund the high costs associated with deployment and long-term sustainability without diverting already limited resources needed to provide for the basic needs of community members. There is a steep learning curve and large number of vulture-consultants hovering around waiting for the opportunity to take advantage of a tribe's lack of expertise.

Lack of Infrastructure

There are already a number of previous studies that discuss the lack of telecommunications infrastructure in great detail.² However, the data chart below provides a clear snapshot of the telecommunications deficiencies in Indian Country.

² Please see: *Telecommunications Technology and Native Americans: Opportunities and Challenges*, U.S. Congress, Office of Technology Assessment, *Telecommunications Technology and Native Americans: Opportunities and Challenges*, OTA-ITC-621, August 1995; U.S. Department of Commerce, Economic Development Agency, *Assessment of Technology Infrastructure in Native Communities*, October 1999; Benton Foundation, *Native Networking: Telecommunications and Information Technology in Indian Country*, April 1999.).

Testimony of
 Kade L. Twist Consulting
 Before the United States Senate Committee on Indian Affairs
 On the Status of Telecommunications in Indian Country
 May 22, 2003

Technology	2,500 pop. or more Households	Rural Households	% of Businesses	% of Schools and Libraries	% of Health Care
Cable	50%	34%	24%	46%	29%
Telephone ³	67.9%	39%	n/a	n/a	n/a
Computer	15%	14%	73%	90%	88%
Internet	10%	8%	43%	82%	62%

Percentages of Homes, Businesses, Schools, and Health Care Providers with Cable, Computers and Internet. (Source: U.S. Department of Commerce, Economic Development Agency, *Assessment of Technology Infrastructure in Native Communities*, October 1999.)

Obviously, there is a telecommunications crisis in Indian Country that is undermining the potential for expanding the human, economic and civic capacities of Indian Nations and tribal members. The data chart above reveals that ubiquitous telephone and Internet access is far from attainable in the near future. The concepts of equity, access and diversity among public communications systems are redlined around most of Indian Country. It's a bleak picture that raises a number of critical social justice issues. For instance, without household telephone service American Indians are dying in their homes because they don't have access to 911 services; they are unable to attain employment because they don't have a phone; they are unable to communicate effectively with their children's teachers or elected leaders.

Without household Internet access American Indians are unable to reap the benefits of an e-government democracy; they are unable to contribute to the public sphere; they are unable to contribute to the diversity and richness of mainstream America through the sharing of their stories, experiences, languages and cultures. Unfortunately, there has not been an adequate study of how the Indian Country digital divide has impacted American Indians from a social justice perspective. Clearly there is a need for more research and analysis of this topic.

Knowledge and Capacity Building

Efforts to bridge the digital divide in Indian Country are subject to lingering efforts to bridge the analog divide. In addition to "catching up" technologically, Indian Country must also solve existing deficiencies resulting from the analog age. This puts a tremendous burden upon tribes and Indian nonprofits to develop organizing processes that address remedial needs and more advanced needs simultaneously. Therefore, the

³ 2000 Census, as compiled by the FCC, 2003.

Testimony of
Kade L. Twist Consulting
Before the United States Senate Committee on Indian Affairs
On the Status of Telecommunications in Indian Country
May 22, 2003

needs for building organizational capacity and planning assistance should be viewed all stakeholders (tribal, federal, state, corporate, nonprofit, and philanthropic) as a top priority. Currently, the majority of Indian Country does not have the organizational capacity or planning resources to expeditiously and efficiently build-out needed infrastructure or effectively manage and utilize infrastructure once it is in place. Addressing the organizational capacity building and planning assistance needs of Indian Country is not only essential to building out infrastructure, it is also essential to sustaining technology investments.

During the course of my research the majority of survey responses identified knowledge and capacity building needs as more significant than funding for development. Furthermore, respondents expressed frustration toward existing knowledge and capacity building resources because, like those available for Native media, they are typically limited to one-day workshops that don't address the needs of specific communities and provide little or no opportunities for on-going support. The majority of respondents also stated that they experienced difficulty accessing capacity building funds for their respective organizations. This is another area where Native media and telecommunications organizations share similar needs and frustrations.

A system of intermediary programs within existing organizations could provide regularly scheduled cluster training and technical assistance sessions followed up with on-going support through on-site visits. Organizations such as the Southern California Tribal Chairman Association and the Affiliate Tribes of Northwest Indians already function successfully as knowledge and capacity building intermediaries. Facilitating collaboration among these and similar organizations might represent the most viable and valuable solution.

The following is a list of the most frequently identified knowledge and capacity building needs:

Challenges

Core funding: The lack of funding for staff and knowledge and capacity building activities poses serious limitations upon the ability of tribes and nonprofits to improve upon the current state of Native telecommunications. The lack of core is the leading barrier to: 1) maintaining organizational stability; 2) effectively and efficiently administering projects and programs that require broad-based collaboration; 3) seizing opportunities to build broad-based partnerships; and 4) building and retaining a highly-skilled, professional staff.

Testimony of
Kade L. Twist Consulting
Before the United States Senate Committee on Indian Affairs
On the Status of Telecommunications in Indian Country
May 22, 2003

Training and technical assistance: The training and technical assistance component is critical to all knowledge and capacity building endeavors. As previously discussed, a system of training and technical assistance intermediaries is needed to provide support that is specifically designed for the needs of tribes and Native telecommunications organizations.

Planning: Only 17% of tribes have developed technology plans.⁴ Federal and foundation funding priorities do not adequately address the telecommunications planning needs of Indian Country. Appropriate and sustainable telecommunications development cannot take place without sufficient planning. There is a tremendous need for funding for planning processes that leverage resources and promote collaboration among tribes and nonprofits, as well as, strategic partnerships among tribes, nonprofits and the private sector.

Community organizing: It is essential for tribal telecommunications development efforts to be linked with existing education, healthcare and economic development efforts. Many tribes have been unable to develop such linkages, and as a result, they are duplicating efforts, failing to leverage resources and failing to develop fully integrated systems. Unfortunately, funding for this type of community organizing has not been made available to tribes or nonprofits. As a result, potential efficiencies and market development opportunities have been unrealized.

Research: There is a need for research, data, analysis and assessments regarding specific reservations and regions of Indian Country. There is a lack of understanding of what infrastructure exists. This lack of understanding makes community technology planning difficult and expensive.

Technology selection: Tribes need access to advanced technical assistance and peer-to-peer technical assistance so that they can successfully choose appropriate technologies for their specific geographic needs and applications needs. Unfortunately, federal and foundation resources fail to adequately provide for this type of technical assistance.

Demand aggregation: There is a strong need for Intertribal collaboration for telecommunications development. Tribes that share geographic regions and have similar telecommunications needs should pool and leverage resources collectively to purchase equipment and contract with vendors and service providers at high volume, reduced rates. Many states, such as Arizona and Oklahoma have been successful in doing this as they have deployed public broadband networks. Unfortunately, this type of collaborative

⁴ U.S. Department of Commerce, Economic Development Agency, *Assessment of Technology Infrastructure in Native Communities*, October 1999

Testimony of
Kade L. Twist Consulting
Before the United States Senate Committee on Indian Affairs
On the Status of Telecommunications in Indian Country
May 22, 2003

model requires a level of training and technical assistance that is beyond the scope of current federal and foundation funding priorities.

Regulatory systems: Only a small handful of tribes have regulatory codes and regulatory bodies for telecommunications. As a result, tribes are unable to hold service providers accountable to tribally mandated business standards and are unable to ensure the protection of consumer rights for their tribal members. Furthermore, it complicates the process of establishing tribal telecommunications companies, prevents tribes from providing services off reservations, and opens the door to disputes over matters of state, federal and tribal jurisdiction. Federal and foundation resources have not been made available for the training and technical assistance tribes need to develop regulatory systems for telecommunications.

Fundraising: Determining how and where to access funds for specific projects and media programming. The lack of crossover appeal of Native narratives limits the success of typical fundraising approaches. There is a severe disparity in funding between Native produced content and mainstream content.

Recruiting staff with advanced skill-sets: There is a shortage of American Indian telecommunications professionals. There is a strong need for internship programs and education and outreach programs aimed at recruiting high school and college students to pursue a career in tribal telecommunications. Unfortunately, advanced skill-sets are difficult to recruit and retain in Indian Country due to the inability of reservation economies to compete with metropolitan economies. An increase in core funding for federal and foundation programs targeting Indian Country would alleviate this problem.

Professional development: Professional development not only improves the value and technical ability of staff, it also improves staff self-esteem and provides incentive to achieve and, in the very least, maintain their employment.

Leadership development: Effective leadership is critical to building and sustaining organizational capacity. Effective leaders have the creativity, knowledge, networking skills and organizing skills to attract a motivated and capable staff, tap into a variety of private, public and foundation resources, build value-added partnerships with private sector and academic institutions, and garner community support for their endeavors. Leadership development organizations such as Americans for Indian Opportunity have had a tremendous impact on the current generation of Indian leaders. However, there is not one leadership development program that specifically targets Native telecommunications professionals.

Testimony of
Kade L. Twist Consulting
Before the United States Senate Committee on Indian Affairs
On the Status of Telecommunications in Indian Country
May 22, 2003

The Need for Further Research and Analysis

There is a tremendous need for a more comprehensive assessment of existing communications technology infrastructure and services subscribed to in Indian Country. Currently, there is a lack of accurate data and appropriately contextualized data for telecommunications infrastructure, available services and services subscribed to on a reservation-by-reservation basis. Data that does exist is either outdated, lacks integrity due to small sample sizes and inappropriate collection methods, or has not been made available on a reservation-by-reservation basis.

The lack of quality data prevents tribal leaders from adequately measuring the severity of their telecommunications and information technology deficiencies, and thus, limits their ability to make decisions that will effectively reverse these deficiencies. The lack of data also severely limits the effectiveness in which tribal leaders are able to participate in an already limiting federal decision making process.

Having access to quality data is also crucial for future telecommunications development. Making such data available dramatically increases the potential for attracting private investment and forging partnerships with private enterprise. Quality data enable tribal communities to map their telecommunications assets and aggregate telecommunications service demand, which are critical processes to providing the private sector with a good business case for future investment.

There also needs to be more research and analysis of communications technology development processes such as tribal collaboration, community planning, demand aggregation, attaining right-of-ways, establishing tribal telecommunications companies, setting up telecommunications regulatory bodies and codes, etc. Best practices for these processes need to be identified and analyzed as a means of promoting the most effective, efficient and affordable means for deploying new technology infrastructure. Best practice models enable tribal leaders to develop successful strategies for future technology development efforts. Furthermore, best practice models can be used to inform the development of federal policies.

Recommendations

Design and implement a funding mechanism that is specifically designed to meet the telecommunications needs of Indian Country and flexible enough to accommodate pre-development, development, and knowledge and capacity building endeavors.

The funding mechanism should link telecommunications investment with nation building, economic development, cultural preservation, community networking and efforts to

Testimony of
Kade L. Twist Consulting
Before the United States Senate Committee on Indian Affairs
On the Status of Telecommunications in Indian Country
May 22, 2003

improve upon core public services, such as: education, healthcare, housing, law enforcement, fire and public safety, and enhanced 911 services.

\$25 million dollars should be appropriated annually, for a period of at least five years, to provide grants to tribal governments and incorporated entities on tribal lands for the purposes of :

- Training and technical assistance, planning, market assessments, aggregating, demand, research, data collection, community organizing, technology selection and system design;
- The construction, acquisition, or lease of facilities, including spectrum, to deploy broadband transmission services to all critical community facilities and to offer such service to all residential and business customers located within the proposed service area;
- The improvement, expansion, construction, or acquisition of a community center that furnishes free access to broadband Internet service, provided that the community center is open and accessible to area residents before and after normal working hours and on Saturday or Sunday. Grant funds provided for the community center are limited to the greater of \$100,000 or 5% of the grant amount requested. The costs of the computer access points, their installation, connection to the broadband transmission system are not included in this limitation;
- The purchase of end-user equipment needed to carry out the project;
- Operating expenses incurred in providing broadband transmission service to critical community facilities for the first 2 years of operations and to provide training and instruction. Salary and administrative expenses will be subject to review, and may be limited, by RUS, for reasonableness in relation to the scope of the project; and
- The purchase of land, buildings, or building construction needed to carry out the project.

Grant awards should start at \$50,000 and have no set limit. Grants should be awarded on a competitive basis. A 25% match of non-federal funds should be required. An emphasis on leveraging resources should be applied to all grants awarded.

Testimony of
Kade L. Twist Consulting
Before the United States Senate Committee on Indian Affairs
On the Status of Telecommunications in Indian Country
May 22, 2003

Conclusion

It is important for Native telecommunications stakeholders to look beyond the current overwhelming lack of infrastructure. Instead, stakeholders should focus on identifying processes of development that complement larger economic development, social service, education and cultural preservation strategies. This will enable the use of scalable development strategies that can be funded incrementally from a broad range of resources. Furthermore, telecommunications development must be driven by practical applications that have a high level of community relevancy.

In this exuberant rush to develop Native telecommunications, it is critical for stakeholders to pay close attention to capacity building and sustainability issues. As previously stated, *Indians have just begun the processes of making telecommunications fit their respective cultural and social wills*. Indian Country has a steep and expensive learning curve to climb. Therefore, Indian Nations have an intense need for planning, community organizing, training, technical assistance, capacity building assistance and the recruitment of talent with a diversity of skill-sets. Indian Nations must also develop regulatory codes and regulatory bodies to ensure the protection of their members' rights as consumers.

Moving the Native telecommunications agenda forward is critical, since these technologies enable tribes to jump over some of the biggest hurdles in developing economic and human potential. Therefore, I urge the Committee to take the necessary steps to design and implement a funding mechanism for telecommunications development in Indian Country that is flexible enough to meet the diverse needs of tribes and aggressive enough to assist tribes in overcoming their enormous telecommunications deficiencies. Funding assistance for telecommunications development without funding assistance for knowledge and capacity building merely solves half of the equation—the non-human side of the equation. Indian Country stands to benefit most from an investment in equipment and infrastructure that is matched with an investment in its people; an investment in building the capacity and knowledge of its people to manage, sustain, and culturally appropriate telecommunications so that these technologies can be made Indian.