

July 27, 1999

Smart Communities Directorate  
Information Highway Applications Branch  
Industry Canada  
2<sup>nd</sup> Floor, Section A, South Tower  
Jean Edmonds Towers, 365 Laurier Ave W  
Ottawa, ON, K1A 0C8

To Whom It May Concern:

**RE: Kuh-Ke-Nah Network (K-Net) of Smart Communities Project**

Keewatinoook Okimakanak is submitting the attached Letter of Intent to Industry Canada's Smart Communities Initiative for consideration to participate as a partner in the development of a demonstration telecommunication service that will transform the way First Nation residents work and live in our member communities.

The letter of intent outlines a strategy to provide telecommunication services and information technology applications in Keewatinoook Okimakanak First Nations. The development and provision of these services and infrastructure meeting acute community based needs addresses a major gap between rural and urban regions of the country. The Kuh-ke-nah project will demonstrate the potential of broadband, multi-media technologies for the provision of cost-effective and appropriate delivery of telecommunication services in small, remote communities of Nishnawbe-Aski Nation.

Kuh-ke-nah proposes to develop, implement and manage a broadband network resource that delivers community-driven applications. This initiative aims to provide timely access to government and social services and meet the information demands of citizens in these communities. Economic development, educational opportunities and human resource development initiatives are planned to expand existing telecommunication applications to ensure the network is sustained and used to its fullest potential. Our work directly addresses all six pillars of Industry Canada's Connecting Canadians agenda.

Keewatinoook Okimakanak is requesting the Smart Communities Directorate consider our project as the National First Nations Demonstrate Project under this Industry Canada initiative.

Sincerely,

Geordie Kakepetum  
Executive Director

and

Brian Beaton  
K-Net Services Coordinator

**SMART COMMUNITIES DEMONSTRATION PROJECT**

**LETTER OF INTENT**

**The Kuh-ke-nah Network of Smart First Nations**

*“Developing and providing SMART First Nation applications and services using new media by building a SMART shared broadband network”*

<http://knet.on.ca/~smart>

Submitted by

**Keewaytinook Okimakanak – KNET Services**

from

- **Deer Lake First Nation**
- **Fort Severn First Nation**
- **Keewaywin First Nation**
- **North Spirit Lake First Nation**
- **Poplar Hill First Nation**

**3 August 1999**

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**Appendix A: Keewaytinook Okimakanak Board Members**

**Appendix B: Copy of Keewaytinook Okimakanak's Letter of Incorporation**

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**Appendix F: Proposed Budget**

<b>The Kuh-ke-nah Network of Smart Communities</b>	
<b><i>Sponsoring Organization</i></b>	<b>Keewaytinook Okimakanak (see Appendix A, B, C)</b>
<b>Date of Incorporation</b>	<b>November 18, 1991</b>
<b>Mailing Address</b>	<b>Box 1439, 115 King Street, Sioux Lookout, ON, P8T 1B9</b>
<b>Telephone</b>	<b>807-737-1135</b>
<b>Fax</b>	<b>807-737-1720</b>
<b>Email</b>	<b>brian.beaton@knet.on.ca</b>
<b>Website</b>	<b>www.knet.on.ca</b>
<b><i>Community:</i></b>	<b>Keewaytinook Okimakanak First Nations (Deer Lake, Fort Severn, Keewaywin, North Spirit Lake and Poplar Hill)</b> check here if you are applying as an Aboriginal community (see definition “Aboriginal community” under Eligible Communities.)

<b>Project Leader</b>	<b>Brian Beaton</b>
<b>Title</b>	<b>K-Net Services Coordinator</b>
<b>Mailing Address</b>	<b>Box 1439, 115 King Street, Sioux Lookout, ON, P8T 1B9</b>
<b>Telephone</b>	<b>807-737-1135</b>
<b>Fax</b>	<b>807-737-1720</b>
<b>Email</b>	<b>brian.beaton@knet.on.ca</b>
<p><b>Explain why this person was chosen to lead the project</b> (See Appendix D for resume). Brian Beaton brings important community development, system - management expertise, and team-building skills to this project. His applied experience implementing both Contact North and the Wahsa Distance Education High School highlight his personal commitment to community-driven delivery strategies and outcomes-based approaches to project leadership. Brian has an intensive and concrete knowledge of community needs and issues and has worked extensively with local and regional stakeholders to design and implement telecom solutions. Brian has been working in the development and maintenance of KNET Services since its start in 1994. As Manager of KNET Services, Brian oversees regional network planning and implementation activities and manages an annual budget of approximately \$1.5M. Brian has a long track record of successfully engaging the public and private sectors in community-driven telecommunications partnerships.</p>	

<b>Budget Summary [See detailed budget - Appendix F.]</b>				
<b>Partners</b>	<b>Year I</b>	<b>Year II</b>	<b>Year III</b>	<b>Total Estimated Contributions</b>
	<b>(000)</b>	<b>(000)</b>	<b>(000)</b>	<b>(000)</b>
SCDP – Industry Canada	\$ 1,500	\$ 2,500	\$ 1,000	\$ 5,000
FedNor (see letters of endorsement)	\$ 500	\$ 500	\$ 500	\$ 1,500
H. R. D. C. (see letter of endorsement)	\$ 500	\$ 500	\$ 500	\$ 1,500
Aboriginal Business Canada (see letter of endorsement)	\$ 500	\$ 750	\$ 0	\$ 1,250
Health Canada (see letters of endorsement)	\$ 500	\$ 1,000	\$ 500	\$ 2,000
Other Partners (private sector) (see letters of endorsement)	\$ 250	\$ 250	\$ 250	\$ 750
Province of Ontario (see letters of endorsement)	\$ 500	\$ 1,000	\$ 500	\$ 2,000
First Nations (see BCRs and letters of endorsement)	\$ 250	\$ 250	\$ 250	\$ 750
Keewaytinook Okimakanak (see Chiefs' resolution & covering letter)	\$ 100	\$ 100	\$ 100	\$ 300
<b>Total Estimated Cost by Year</b>	<b>\$ 4,600</b>	<b>\$ 6,850</b>	<b>\$ 3,600</b>	<b>\$ 15,050</b>
<b>Total Estimated Cost of Proposed Project</b>				<b>\$ 15,050</b>

***Language of Correspondence:***

Indicate whether you prefer English or French as your official language of correspondence.

**English****French**

## VISION OF THE FUTURE

The Deer Lake, Fort Severn, Keewaywin, North Spirit Lake, and Poplar Hill First Nations share a collaborative vision for community wellness and development. We call our vision the Kuh-ke-nah Network of Smart First Nations, an integrated scalable network resource that each community will contribute to and draw from.. We share similar conditions and a future of self-governance - a transformative challenge that they plan to meet together.

Our goal is to use Kuh-ke-nah to re-construct the protocols of work and service delivery in our communities, to re-articulate local standards of living, and to re-determine our socio-economic interface with Canada and the world. We aim to do this work in partnership with government and business, ideas and capital, infrastructure and services. The Kuh-ke-nah Network envisions a geographically contingent cluster of First Nations sharing a common telecommunications resource. It foresees local construction of Information Technology Centres where connectivity is managed, applications converge and where citizens, learners, clients, and professionals interact.

Kuh-ke-nah will bring community access to new generation services such as electronic democracy and commerce, health informatics, distributed learning and delivers new ways of meeting local demand for information-based skills and competencies. The Kuh-ke-nah project builds a bridge between knowledge-intensive expertise and local needs, creates new opportunities for telework in communities, and proposes a new standard of interoperability between First Nations and Canada.

A Smart Communities designation for Kuh-ke-nah acknowledges the commitment and investment that these First Nations have already made. Demonstration project status will lever new partners and applications and attribute confidence to this locally initiated undertaking. It will position Kuh-ke-nah as a model for emerging nations worldwide, as a schema for regional cooperation and development, and as a method for empowering individuals and communities to make informed choices about their future. Being recognized as a demonstration site also engages Kuh-ke-nah in a formative cycle of improved practice - a direct means for sharing expertise among project partners and learning from project conditions and constituencies.

Our First Nations will use this project as a way to adjust to changing circumstances. It is a valued networked solution with the potential for improving First Nation's access to the social, cultural, and economic mainstays of Canadian well-being. It is a logical next step for communities who introduced wireless local area networking in advance of residential telephony. It also expresses a broadly-based political consensus that technological synergies will meet acute health and education needs in communities.

Kuh-ke-nah reaches back at the same time that it moves forward. It engages Indigenous concepts such as open systems/non-linear thinking and recontextualizes traditional processes such as lifelong learning. Kuh-ke-nah uses new media to demonstrate how many and diverse voices can communicate in one world. It establishes a collaboratory, a place where human needs and technological capacities are shared and innovation is an outcome and an ingredient of a renewed learning relationship between First Nations and Canadian society.

## DESCRIPTION OF PROPOSED PROJECT

### 3.1 COMMUNITY ENGAGEMENT

- Describe your experience in engaging the community in initiatives of similar size, scope and nature.

KNET is a horizontally integrated clearinghouse for addressing Indigenous telecommunications issues, infrastructures and applications in the Nishnawbe-Aski Nation - an overview of community projects is available at: <http://www.knet.on.ca>. As the telecom arm of Keewaytinook Okimakanak, KNET assumes a leadership position facilitating technology projects, distributing electronic services, and developing new media content.

The KNET Services team has coordinated broadly-based projects aimed at improving the quality and level of telecommunications services available in First Nations - see 3.4 ORGANIZATION. KNET has been instrumental in demonstrating the practical value of communications applications in First Nations. KNET's success is based on its proximity to emerging community needs, its commitment to pragmatic system-based solutions, and by its capacity to support early adopters in their use of new technologies and applications. KNET provides HelpDesk Services to 60 First Nations SchoolNet sites, manages annual Science and Technology Camps for Aboriginal youth, and hosts computer-mediated conferences with groups such as the Ontario First Nation Principals. In addition, KNET has developed on-line learner resources such as the DirecPC Manual and the Webpage Development Guide.

In 1994, KNET introduced a text-based BBS service and provided intensive training for its community members. The service grew from a gated training application in to a regional messaging system. The BBS forums are still an active and accessible resource. In 1996, KNET launched a web-based e-mail service to animate adoption of improved internet access. The KNET mail server hosts 3,328 clients in remote communities - clients include adults and children, administrators, leaders, teachers and health professionals.

In 1998, KNET responded to First Nations interest in telehealth by brokering a partnership among the Communications Research Centre, Health Canada, the Ottawa Heart Institute, Computing Devices Canada, and the Margaret Cochenour Memorial Hospital in Red Lake. The application was positively evaluated and is now part of the hospital's cardiological protocol.

This summer KNET initiated a telepsychiatry pilot partnership with Health Canada, Nodin Counselling, the London Psychiatric Hospital and Virtual Professionals Incorporated (VPI). Counsellors, health professionals, and clients in Sioux Lookout and Red Lake are now using the VPI interface for therapeutic and professional development purposes. Both projects are demonstrating how Canadian information technologies and applications can effectively deliver knowledge-intensive expertise in remote First Nations settings.

- Describe your community's current economic, social and cultural development challenges and priorities (include a socio-economic profile of your community).

Keewatinook Okimakanak First Nations are members of Nishnawbe-Aski Nation (NAN). They are small, remote, fly-in communities that have struggled for decades with the practical consequences of institutionalized isolation. Hospital and high school access require air travel - with the exception of a 10 week period when 4x4 vehicles can travel along a winter road. The average population base in each community is about 400 residents, with a combined population of 2200. Most homes are within walking distance of local services such as education, health and administration buildings. Communities share demographic characteristics. Almost 25 percent of the total population are younger than age 10. An additional 25 percent are between the ages of 10 and 19 years of age. Fewer than four percent of the total population is age 60 or older. Approximately 36 percent of the adult population is unemployed or is receiving some form of social assistance. High school completion rates are low, particularly for those 45 years of age or older. All of the communities are located in resource rich areas. Forestry and mining activities are rapidly expanding in to traditional territories and tourism is a seasonal mainstay for the area. More detailed community profiles are available at <http://knet.on.ca/~smart>.

- Identify who you have consulted, and in what capacity, to assess your needs and to identify your priorities, and outline the results of these consultations.

As the lead agency in the First Nations Telecommunications Steering Committee - a coalition of Indigenous communities and organizations sharing an aim to improve the quality and level of telecommunications services - KNET has prepared and submitted numerous research reports and submissions. These include broadly-based work such as its report to the CRTC's High-Cost Service Areas hearings, the North of Red Lake Study, and a NAN-wide Telecommunications Study. KNET has also developed focused needs research for its member communities such as the KuhKeNah Tele-Health Network Study and the Broadband Networking Study (in progress).

The latter study co-funded by HRDC, FedNor, and the Northern Ontario Heritage Fund includes a community-based assessment of need and demand for network applications. The Community consultation, completed in May and June of this year, describes how the Deer Lake, Fort Severn, Keewaywin, North Spirit Lake, and Poplar Hill First Nations have prepared themselves to introduce local access to electronic services in a shared network environment.

The consultations drew on information gathered at meetings held in each community, structured interviews conducted with residents and stakeholders, local technology inventories and consultant observations. The consultation documents community readiness for the introduction of broadband networks - functional community networks, base of service users - and broadly identifies community well-being as a primary objective for the introduction of new services.

Specifically, community respondents indicated that new employment opportunities (telework, computer repair, and web development) and service delivery - particularly health (teleconsults, health information systems, and CME) and education (skills upgrading, post-secondary, and professional development) applications are high priorities. The community consultations also indicate local needs for coordinated delivery of support services and for the development of local



community-based facilities - Information Technology Centres -- where broadband services will converge and be delivered.

- Specify how you plan to ensure that all members of your community are kept informed about, and engaged in, the project, including how you will ensure community-wide public access.

Community awareness and involvement work is built into the planning and evaluation components of the project. Kuh-Ke-Nuh First Nations all maintain active community access sites. KNET services will develop, print-based, and interactive on-line and on-air information resources to support community awareness and involvement in all Kuh-ke-nah initiatives. All information resources will be available in the four predominant languages. KNET will also engage the University of Guelph's Snowden Centre to animate regular community-based dialogues. Yearly on-line conferences will augment community interaction and awareness.

- Print - a quarterly newsletter summarizes steps and profiles user interaction with applications
- On-line - development of an interactive web site for communities that archives project documentation and community feedback, showcases new applications, and chronologically graphs plans against outcomes. A prototype is available at: <http://www.knet.on.ca/SC/>
- On-air - Community Access Coordinators will use local community radio to broadcast project updates and solicit feedback. Information vignettes will be produced for broadcast on the Wawatay Radio Network.
- Community Dialogues - the Snowden Centre's PACTS research methodology is dialogic and dynamic. The research process will engage community members in regular dialogues to inform and assess their comfort with the project's outcomes and their perceptions of its benefits. This information will be fed back to the Project Advisory and Management teams.
- Conferences. On-line conferences will be organized to benchmark progress at the end of each year. The first year's conference will focus on a regional Nishnawbe-Aski audience. The second year's conference will draw on national Aboriginal partners. In the third and final year Kuh-ke-nah will host an International Indigenous Networking conference.

### ***3.2 SMART SERVICES***

- Outline your proposed Smart services and identify which community needs they will address.

The Kuh-ke-nah network will implement three major projects to encourage and stimulate use of SMART services. The Data Warehouse Initiative will develop inter-institutional criteria and data standards for the development of interoperable databases. The Kuh-ke-nah Portal will provide a point of convergence for network communities and will bring together needed and useful local information for various user groups and applications. Information Technology Centres will host a range of broadband services and support the electronic resource needs of lifelong learners, businesses and teleworkers.

#### **1. Data Warehouse Initiative**

- **Working Group** - to establish inter-institutional partnerships with agencies such as the First Nations Health Information Services, Indian Affairs, provincial Ministry of Education and

Industry Canada, to develop criteria for developing an interoperable database platform for electronic record development in each community and to set access standards for use by health, education, and social service professionals, First Nations Administrators and government agencies.

## 2. Kuh-ke-nah Portal (Internet)

- **Web Interface** - personalized web access and e-mail, Networked Community Radio - streamed audio of what's on the radio in each community, a Youth Recreation Website, Native Language Dictionary and resource tools, a Digital Art and Crafts Gallery, a Community Announcements Board, and Dynamic Digital Literacy Support.
- **Community Development Tools** - data interchange demonstrations and user support for small businesses, and local government administrators (data transfer, inventory control) and web presence for use of e-commerce services (marketing, e-mail, and on-line bidding).
- **Government On-line** - support for use of on-line communication tools to guide community and regional plans, land use planning and emergency preparedness planning, to facilitate access to provincial and national government sites and services and to disseminate local and regional records of decision such as hyperlinked Band Council Minutes and audio streaming for Regional Chief's meetings.

## 3. Information Technology Centres (Broadband)

- **Lifelong Learning and Community Well-Being** - to facilitate the delivery and convergence of broadband services for learners, clients, professionals. Videoconference applications would include: teleconsults, family counseling, staying in touch with high school learners outside of the community, continuing medical education, professional development, skills upgrading, and justice applications such as bail and remand hearings. The ITC would also host multi-media production facilities to support the development of culturally and linguistically appropriate new media products, provide local access to library resources and on-line reference materials. It will host teleworkstations and support access for visually, hearing and motor impaired users.
- Explain how proposed Smart services build upon existing services provided through community networks and upon existing on-line government services.

The implementation of community networking has changed the way that Kuh-ke-nah communities think about information access. First Nations SchoolNet and Community Access Program sites have introduced a means for citizens in these remote First Nations to gain easy and timely access to information. E-mail has facilitated new dialogues among colleagues (Band Administrators, federal and provincial staff), service providers (nurses, family and social services staff, teachers), and citizens (youth, elders, the disabled).

Local web access has opened a window to strategic information resources that focus on First Nation concerns: economic development databases (Strategis Aboriginal Business Canada: <http://abc.gc.ca>), policy archives (the Final Report of the Royal Commission on Aboriginal

Peoples - <http://www.indigenous.bc.ca/rcap.htm>), and international initiatives (UNESCO's Best Practices in Indigenous Knowledge <http://www.unesco.org/most/bpindi.htm>). Access to the internet has also animated intensive interest in web design. Aboriginal web developers have created interactive cultural repositories such as the Iyash Legends Site (<http://www.knet.on.ca/legends>) and community service profiles (<http://www.knet.on.ca/SC>).

### **3.3 INFRASTRUCTURE**

- Describe the current technological capacity of your community, including any existing Smart services, how they are delivered (i.e. technical infrastructure) and their coverage (i.e. percentage penetration).

The technical infrastructure in each community accommodates wireless networking at 1.5 Mbps. Outbound internet traffic is routed through dual 4,800 baud modes (combined for 9,600 baud) and inbound internet traffic is routed off satellite at up to 384 kbps. Computer access is broadly-based in local offices. All health, educational, policing, small business and Band administrative centers utilize computer-based systems. The majority of these computers are Pentium systems. Approximately 25 percent of the population in each community has used the internet. Regular users account for between 10 and 15 percent of the general population.

- Describe the extent to which schools, libraries, government offices, the business community and the general population are, or will be, connected to the Internet.

The internet is connected to the community access site, clinic, elementary school, constabulary and Band Office via each community's wireless LAN - there is no local access to library services. The local area networks are managed and routed locally by Linux servers. The digital radio upgrade of Bell Canada's backbone north of Red Lake will enable broadband service provision in 1999. Fort Severn's satellite system will be similarly upgraded to accommodate broadband services this year. Implementation of broadband gateways will introduce local internet service provision and consolidate high bandwidth applications in local Information Technology Centres.

- Specify what kind of new infrastructure is required to support your proposed Smart services.

Information Technology Centres (ITC) will be constructed in each Keewatinook Okimakanak community. KNET will provision a broadband access site for McDowell Lake Band members at its Red Lake offices. The Information Technology Centre will provide videoconference, multi-media and telework time-share suites, teleconsult facilities, community access/computer lab access, library services and meeting rooms. The ITC will also house a local server park and provide technical maintenance and support services. Additional wireless or fiberoptic broadband cabling will be deployed to extend access over time to strategic locations such as schools, Band Offices, Clinics and Constabularies.

- Discuss how your organization will ensure efficient deployment of the enhanced infrastructure.

This project was designed from needs identified by people in the Kuh-ke-Nah network First Nations. Their focus is on the useful application of technology to meet longstanding and acute community needs. The KNET Project Management Team will ensure efficient deployment of

enhanced infrastructure and institutional resources by addressing service priorities and by supporting individual understanding and use of information and communications technologies in each First Nation. This approach is reflected in our community awareness strategy (above), our project governance and management structures (below) and our evaluation plan (also below).

### **3.4 ORGANIZATION**

- Describe your community's past experience in establishing and sustaining effective public/private sector partnerships.

KNET's work is predicated on sustainable partnerships for community development. These partnerships enable key technical and institutional infrastructural changes and have produced a critical mass of individuals in communities who are driving system-wide transformations.

During the past three years KNET has worked with Bell Canada and FedNor to initiate and coordinate regional telecommunications improvement projects such as the North of Red Lake Digital Radio Upgrade, the Satellite Served First Nations Upgrade, the Deer Lake and Poplar Hill Telecommunication Digital Data Service Upgrade, the North Spirit Lake Telecom Service Development, and the Keewaywin Telecom Service Development. KNET has also worked with the Government Telecommunications and Information Service, First Nations SchoolNet, and the Community Access Program to develop wireless connectivity infrastructure for 24 remote First Nations (see Appendix E: Letters of Endorsement for descriptions of various partnerships).

KNET Services plays a lead role in the regional diffusion of information-based literacies. KNET has partnered with Industry Canada, HRDC, INAC, the Sioux Lookout Area Aboriginal Management Board (SLAAMB), Confederation College and Lakehead University to coordinate and support community-based technology transfer. KNET has delivered training programs such as the Computer Technician Training Project, the Community Access Coordinator/Network Administrator and Webmaster Project, and the Telecommunications Support Technician Project.

- Provide an overview of how this demonstration project will be both governed and managed.

The Kuh-ke-Nah Network will be governed by the Keewaytinook Chiefs' Council. The KNET Project Management Team will direct day-to-day operations. A seven member volunteer Project Advisory Group will provide strategic advice to the Project Management Team.

- Provide a list of the key members of the demonstration project team and summarize their relevant experience, interests, roles and responsibilities, and nature of involvement (e.g. staff or volunteer). Describe how you will work in partnership with others to implement this demonstration project.

The Project Management Team will consist of Brian Beaton (Project Leader), Darlene Rae (Human Resources and Training), Dan Pellerin (Infrastructure and Applications) George Kakekaspan (Awareness and Consultation), Penny Carpenter (Finance), and Geordie Kakepetum (Accountability). Brian Beaton is the Manager of KNET Services and will oversee all aspects of the project. Darlene Rae is the Manager of KNET Programs, Darlene will ensure that community-based workers are engaged, trained, and supported. Dan Pellerin is KNET's Network

Administrator. Dan will work with technology partners to coordinate technology deployment, maintenance, and repair. Penny Carpenter is the Chief Financial Officer of Keewaytinook Okimakanak. Penny will manage project finances. George Kakekaspan is the Chief of the Fort Severn First Nation. George will coordinate community awareness and assessment. Geordie Kakepetum is the Executive Director of Keewaytinook Okimakanak. Geordie will ensure that project outcomes meet community needs.

- Outline your plans for long-term sustainability.

Community migration to SMART services is a key indicator of long-term sustainability. This project is built on strong community buy-in to using new media in addressing community needs. The existing and planned SMART initiatives reflect the skills and intensive local knowledge of the Project Management Team and the strong partnerships that exists among First Nations and project partners. Leveraging these resources will enable long-term viability.

Sustainability is also built in to the technological benefits that accrue within a shared network environment. Common needs and the aggregation of bandwidth encourage relationship building and support the long term vision of this project. All parties will contribute to the ongoing leased use costs of the network. The range of applications will ensure that major users (health, education, governance, administration and justice) support operational and capital project commitments. Over time, demonstration of the SMART model will diffuse network access to other First Nations who contribute to and expand the relationship potential for Kuh-ke-Nah.

### **3.5 SMART RESULTS**

- Describe how information and communication technologies have benefitted your community to date (e.g. specify measurable changes in the way people live, work and play).

The introduction of improved communication services has created new local jobs and job opportunities. It has provided a vital professional development connection for local teachers and health professionals in the community. New media has also provided a means for youth to escape the isolation of their immediate environment and to learn more about the world around them. These new services have improved First Nations access to government agencies, officials and programs. New communications services have been used to provide culturally and linguistically relevant instruction to children. Recent investments in infrastructure development by Bell Canada and other partners is resulting in new career and entrepreneurial opportunities.

- Describe how this demonstration project will benefit your community in terms of economic, social and cultural development, and technological advancement.

This demonstration project proposes five primary benefits for Keewaytinook Okimakanak:

1. The ability to develop an integrated health information and delivery system that addresses longstanding and acute community wellness needs.
2. The creation of a self-determining means for First Nations to collaborate (plan, implement, and deliver scarce resources and basic services).

3. The opportunity to increase employment and economic development activity and to offer youth new incentives for staying in and contributing to their communities.
  4. The opportunity to use new media to revitalize linguistic and cultural practices.
  5. The reduction of isolation as a limiting factor in the growth/development of First Nations.
- Outline the potential national and international market opportunities that your demonstration project will create for Canadian-made technologies.

The Kuh-ke-nah Network of Smart Communities is a model for emerging nations worldwide. It will demonstrate the efficacy and robustness of Canadian telecommunications and information technologies in field applications and present new opportunities for their use in similar First Nations and developing world contexts. The acuity of this need is drawn out in the Final Report of the G8 Government On-line Project - Recommendation 9: "One of the objectives GOL was unable to meet was the transfer of technology, particularly to the developing countries" (p. 53). Kuh-ke-nah proposes a template for implementing SMART solutions that will meet widely shared needs and concerns of developing nations in Canada and around the world (See attached letter from Al Kingan, Director, Government Telecommunications & Informatics Services).

- Outline how you plan to measure progress throughout the course of the demonstration project. Identify key indicators that will show you are making progress towards achieving your vision.

KNET has developed a partnership with the Don Snowden Center for Development Communication at the University of Guelph to use a PACTS research framework to evaluate the development and implementation of the Kuh-ke-nah Network of Smart Communities. The PACTS (Partnerships, Accessibility, and Community Transformation Strategies) framework will dynamically document and assess Kuh-ke-nah progress. The objectives of the evaluation are:

- To examine the partnerships among groups in each site
- To describe the infrastructure and investment that provide accessibility
- To determine the community services and applications that have made connectivity possible
- To define the Outcomes and Outputs that constitute transformation
- To analyze the emerging services, applications and new institutional roles that emerge from community-driven ICT innovation

The KNET project management team will complement the PACTS research by establishing Community Implementation Committees (CICs) and by monitoring progress related to infrastructural commitments and institutional migration to SMART service delivery. KNET will also use PACTs to establish a baseline for evaluating progress related to key community-based indicators such as:

- the cultural relevance, timeliness and accuracy of local information on-line, number of hits registered on the Regional Portal, generation of new working environments (telework) and creation of new jobs, frequency of request for training, use of on-line forums, new inter-organizational networking commitments, relocation of service delivery, participation by local businesses in global or regional projects, secondary school completion rates, diffusion of computer literacy skills, electronic interaction with local decision-making bodies and government agencies, growth in personal web page development and e-mail traffic.