

Ways to use Broadband Services to Enhance Community Economic Development in First Nations

The following is a list of some of the initiatives that are possible in the community once broadband telecommunications capacity is installed and operational. This menu provides some of the activities that will create economic development and capacity building within the First Nation.

The sample applications for Broadband Services in First Nations are not the only initiatives that can develop with these new technologies. These examples are based on ideas tried in other communities and/or on the knowledge that has already been gained about what works and doesn't work in the communities.

The menu is divided into four sections:

- Business Development Opportunities;
- Broadband Service Businesses;
- Public Sector Applications; and
- Regional Enterprises.

BUSINESS DEVELOPMENT OPPORTUNITIES

Initiative	Benefits
<p>Eco-Tourism Marketing and Expansion</p> <ul style="list-style-type: none"> • a broader market can be reached in new ways using a user-friendly multimedia interface system; • interactive video conferencing is done at targeted conferences and forums in urban centres in America, Europe, etc; • large numbers of specific targets (women, naturalists, environmentalists, etc), are able to talk to community tourist operators and experience through video the features to be offered in the community's tourism package; • new specialized markets can be reached and developed, for example, women leading women's wilderness experiences; • broadband audio and video are used to train operators and guides and marketing specialists; • online tourists browsing a web site will be able to connect directly to a live tourist operator in the community by clicking a button on their screen 	<ul style="list-style-type: none"> - creates and sustains a new market to increase the viability of tourism sector - supports the practice and strengthening of traditional pursuits - involves women in tourism as guides, lecturers and organizers - tourism expands to all seasons and has lucrative spin-offs) see Arts and Crafts Development, below - builds on existing strengths and skills of women, elders and traditional practitioners and adds cash value to these

Arts and Crafts Development

- use of multi-media system to advertise and promote a range of the crafts and art indigenous to the community (or a region);
 - can be a spin-off from eco-tourism and related marketing, e.g in Churchill, Manitoba, website advertising local crafts for a mail order business evolved from eco-tourist business;
 - video conferencing allows craftspeople from different communities to form guilds to pass on techniques, exchange ideas concerning business development and teach new forms, patterns and materials to youth\new artisans;
 - First Nations crafts guilds offer courses in a particular craft or skill to specific outside markets, for example former tourists, southern artisans, and those with an interest in the north;
 - broadband network provide customers - wherever they may be- with high speed access to the human resources and products of the craft guild.
- markets extended for those women already engaged in the micro production of the craft(s), thus prompting an increase in production and the number of producers
 - quality control improved through guilds and because of increased demand
 - supports and extends traditional pursuits, ie craftspeople will teach youth
 - business can be conducted from the home where most younger women must stay with their children
 - encourages capacity building of women, ie managing cottage industries, quality control, marketing and production skills, etc
 - craftspeople and artists have expanded options for remuneration- either the products themselves or their own skills and knowledge as teachers and trainers

Sale of Intellectual \ Cultural Products

- cultural and intellectual “products” are communicated using interactive real time video seminars, courses and meetings
 - examples of these are language instruction, history, legends and stories, nature photography, uses of plants and traditional medicines; wild food gathering and preparation, survival and “bush” skills – tracking, reading weather, etc;
 - traditional knowledge institutes and conferences online will attract a new audience and market;
 - a community or group of communities could establish a Traditional Knowledge Institute
 - to teach language and belief systems and other traditional skills and knowledge to youth in a jail setting or
 - urban First Nations people or a seminar of teachers at a teachers’ conference, etc, etc
- involves new players in the economy - elders, youth and women;
 - important factor is that the community controls what they share and teach, but at least there is the option for them to receive financial gain for their highly developed skills and traditional knowledge;
 - broadband capacity is seen as a means for strengthening First Nations ownership of their intellectual property - they may share it for financial gain, at their discretion but the control of the material and the knowledge remains in the First Nation;
 - develops an information and production sector in the community, ie people who can write, create web pages, and “produce” shows and courses;
 - knowledge flows from north to south and this adds value to it in both local and global contexts.

BROADBAND SERVICE BUSINESSES

Initiative	Benefits
<p>Broadband Service Employment Opportunities in each First Nation</p> <ul style="list-style-type: none"> • a wide range of new community-based jobs\services will be required to create and sustain broadband services <ul style="list-style-type: none"> • examples of these are: <ul style="list-style-type: none"> - internet service providers, - help desk technicians, - community access co-ordinators (training positions), - multimedia producers, - web site creators, - data base librarians and researchers, - project and system managers, and - call centre hosts\translators • Some of these positions will be regional positions involving clusters of communities • staff\services configuration will depend on the number of applications used, ie part time positions or several functions compressed into one job, etc • numerous models of technical\community support jobs presently exist in communities and regionally at FNEESC, Telus maintenance and repair staff, community radio producers and managers, project managers, help desk technicians, web site creators, etc • Community Access Co-ordinators who are co-ordinating community use of the Schoolnet and Internet services in each First Nation are already in place in some First Nations; these are training positions allow trainees to obtain experience and skills to perform a wide range of network support functions and to evolve as the network evolves 	<ul style="list-style-type: none"> - the development of broadband service technical support, production and management positions will mean the addition of a significant number of revenue-supported jobs at the community level - existing technical\mechanical positions demonstrate a high level of competency and adaptability by the First Nations staff holding these jobs as they are presently carried out in the first Nation - the addition of two- three full time skilled jobs or equivalent per community represents a significant economic gain

PUBLIC SECTOR APPLICATIONS

Initiative	Benefits
<p>Enhanced Human Resource Capacity Building: Communities Become Learning Environments</p> <ul style="list-style-type: none"> • all sectors of the public service in the community have opportunities for learning and updating skills through interactive audio/video and computer mediated learning: • teachers, health care professionals, management and financial professionals; decision-makers, justice and security workers, social workers and counsellors, resource managers, etc • training materials with text, audio and images can be stored on centrally managed servers and can be accessed by users from anywhere in the community • large-scale distance learning programs can be rolled out in any sites in any offices in the community without jeopardizing other applications taking place in the offices <p>Some examples:</p> <ul style="list-style-type: none"> • auditors, financial advisors and co-managers interface directly with financial staff using the full range of multimedia interface and real time video to verify, monitor, but most importantly to transfer skills to Band financial staff • classroom assistants observe a specialist teach a class of learning disabled children in Ottawa and then ask questions about what they observed • Health Director continues Public Administration degree by taking online course in research technique and statistics from Athabasca University • Elder in Takla Landing holds a series of video lectures for health care professionals on traditional healing and medicines 	<ul style="list-style-type: none"> - the public sector begins to make progress in the existing gaps in education and training of staff (existing off-site training programs are not matching in any way the growth in demand for increased skills and knowledge in the public sector) - the public sector is growing exponentially (self government initiatives); broadband services will provide affordable training mechanisms to prepare people to assume the myriad of new positions being created - communities will become places where you can learn what you need to know to do your job as it changes and evolves - First Nations youth professional are encouraged to return or stay in the community - reduces costs and increases effectiveness of all advice, training and academic upgrading - the rate of transfer training will be accelerated and more "hands on" without associated travel costs

Developing and Improving Community-based Health Care Services

- Telehealth and health informatics encompass a wide range of categories that go beyond the remote diagnosis of patients. These can include all forms of medicine at a distance including:
 - Teleconsultations
 - Continuing Health Education
 - Telepsychiatry
 - Electronic health records
 - Population Health databases
 - Clinical records, information systems, electronic health records, community health information networks, tele-education and multi-media applications for health professionals, telemonitoring and telecare networks and telephone triage are all forms of health informatics.
- the health sector begins to make progress in the existing gaps in education and training of staff (existing off-site training programs are not matching in any way the growth in demand for increased skills and knowledge in the health sector)
 - First Nations youth professional are encouraged to return or stay in the community with improved health services
 - reduces costs and increases effectiveness of all advice, training and health care services – makes more effective use of existing resources
 - the rate of transfer training will be accelerated and more” hands on” without associated travel costs

Online Interactive Conferencing

- online interactive conferencing will allow all organizations and groups in the community to coordinate required meetings more quickly and cost effectively than is presently possible - in or outside of the community
- video multicasts can be used to disseminate vital information to all the desktops in the band office without needing to gather staff together or interrupt their work

Some examples:

- Chief and Council organize, "call up" and talk to Minister's assistant from site of community oil spill
- senior staff in the band administration office hold online meeting with all partners in a project where mixed messages and problems have stalled the project; documents and plans are able to be referred to in the video meeting
- consultant presents draft report on screen in video conference and special projects committee review and watch as s/he makes required changes. Completed document is printed in Band office at end of meeting.
- testimony from an Kitimaat for a court case being tried in Terrace is taken in real time from the community
- Chief and Council are able to browse the net to find the product that suits their needs best; when they find it, they push a button to talk to the agent about it

- significant savings in travel are accrued (travel both to and from community); these savings are reinvested in the development of new applications\businesses using broadband services
- community leaders and decision-makers increase their capacity to work strategically and effectively with a range of partners ranging from their own Tribal Council to a host of federal and provincial governments and other key agencies
- significantly increases the cost effectiveness quotient of First Nations' communicating needs and community priorities (use of multimedia interface to demonstrate problems, explaining projects and solutions, inform outsiders of community contexts, etc)
- community is seen by all players as the place "where business is done" and where decisions are made

Online Data Transfer

- large banks of information and data can be exchanged by community groups and outside governments \ institutions in real time
 - Land Use Committees in different communities can transfer mapped information online and discuss disputes with overlap areas, using GIS to locate and mark resolutions of disputed areas
 - plans, architectural drawings and engineering studies can be exchanged, modified, and discussed online with no travel involved
 - First Nations will be able to receive in their offices complex and lengthy government information and documents and studies in multimedia formats and will have the capacity to work with these and respond to them in real time
 - regional working groups can exchange very large graphics files and meet at the same time to discuss and plan (without travel)
 - visual records - photos, ID's, X-Rays, etc can be digitally stored for future retrieval, as required without waiting for weeks to have documents sent by mail
- First Nations administrations – resource managers, health system directors, capital projects managers, etc – wil have immediate access to all information presently available only to higher end users (governments, business, research councils)
 - the information lag that currently hampers management and government liaison in the First Nations will be virtually eliminated at a greatly reduced cost

REGIONAL APPLICATIONS

Initiative	Benefits
<p>Broad based Consultation and Consensus Building</p> <ul style="list-style-type: none"> • multimedia systems will allow public policy consultation to take place community by community in real time so that feedback is heard by all and becomes part of the consensus building process • financial and human resources have not been available to conduct extensive public policy consultation in BC First Nations (e.g. upcoming Oil and Gas discussions). • this process will be enhanced by the development of a First Nations-controlled electronic news and information service (see below) 	<ul style="list-style-type: none"> - all political liaison groups in the region (Tribal Councils, Health Boards, Regional and District entities) will be able to build public policy democratically - this will strengthen public participation in policy and decision-making - have the effect as well of providing co-ordinating bodies with strong direction which they will then feel obligated to follow
<p>Online Information Services</p> <ul style="list-style-type: none"> • Summit, UBCIC and Tribal Council offices will develop and maintain on-line databases for distribution of information and sharing of resources • Northern Native Communications Society is the media and communications organization for northern BC presently it produces a network radio programming – that can be archived. • broadband capacity in the communities will allow for multimedia format cultural news and information to be presented to communities and families as soon as it is produced • Cultural Centre websites will make 50 years of cultural news and information available through a searchable data base 	<ul style="list-style-type: none"> - BC Aboriginal people will be better informed of the events on which they will be expected to make decisions - information and news presented in the languages of the regions supports and sustains their use and continuation - employment will be created for skilled journalists and network multimedia producers - students and academics in communities and elsewhere will be able to use the cultural data bases to trace the development and history of the region over the past 50 years and to produce relevant educational materials in the languages of the region for use in schools, and distance education

**Production and marketing of “value-added products”
from natural resources management**

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| <ul style="list-style-type: none">• use of broadband networking capacity to develop new marketing and sales techniques for manufactured products that are indigenous to the area• First Nations network can form regional companies to produce “natural” products (value-added wood [wooden furniture, picture frames, toys and sculptures], gemstone jewellery, wild berry jams, painted decoys, pemmican, etc)• multimedia system to be used for mail order marketing and video conferencing to organize staff regionally to promote new products | <ul style="list-style-type: none">- value-added business which uses the new technology to ensure viability of indigenous production- First Nations retailers develop skills in marketing and sales |
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