First Nations Safety Council of British Columbia

A Case Study in First Nations Workplace Safety and Broadband Internet Connectivity
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1. Executive Summary

The connectedness of all things is at the heart of all First Nations people and the health and safety of their workers is interconnected to the preservation and sustainment of the territories and the resources within them.

In a world of increasingly complex technologies and methods of operation and a growing resource based economy, First Nations’ communities, businesses and workers are finding themselves left behind due to a lack of access to technological resources such as online training, job boards, contractor tender notifications, etc. This lack of connectivity also impedes First Nations workers, the fastest growing demographic of “New and Young Workers”, access to data sharing on hazard alerts, risk identification tools and contractor prequalification systems rendering them unable to meet selection criteria for work being conducted on their lands and territories.

The First Nations Safety Council of B.C (FNSC-BC) is an indigenous-led health and safety association that guided by First Nations cultures and traditions dedicated to supporting occupational health, safety and environmental management in a culturally appropriate, holistic and proactive manner.

FNSC-BC understands the foundational importance of digital information and access to online collaboration as a key enabler in delivering its mission to support BC First Nations individuals, communities and enterprises in achieving the highest standard of occupational health, safety and environmental management by building internal capacity to manage sustainable step-change in occupational health, safety and environmental oversight.

Having sustainable broadband internet in First Nations’ Communities is critical to ensure access to safe, healthy and environmentally sustainable opportunities for their workers, businesses and Nation. This connectivity will also be essential to ensure data sharing between joint venture economic development partners and industry.

The digital systems and data sharing required include regulatory compliance, certification, training and sharing traditional knowledge, wisdom and culturally appropriate practices.

Digital access will also enable the Nations and communities to be part of regional and global economies while having the ability to monitor and safely manage operations being performed within their territories.
Case Study Purpose and Scope

“To explore innovative and sustainable models for Broadband Network access as an Infrastructure to the First Nations Communities upon which the electronic services to enable better outcomes in Health, Education, Government, Environment and Cultures can be delivered”

2. First Nations Safety Council of British Columbia: Overview

The First Nations Safety Council of British Columbia (FNSC-BC) was formed in 2015 to support BC First Nations individuals, communities and enterprises in achieving the highest standard of occupational health, safety and environmental stewardship by building internal capacities to lead sustainable step-change in occupational health, safety and environmental management creating a legacy of safety leadership aligned with traditional cultures and values.

Research has shown that significant disparities and challenges exist for First Nations people, communities and enterprises with regard to aligning occupational health, safety and environment management.

The First Nations Safety Council of BC supports oversight by First Nations’ governments, businesses and workers by aligning the operational requirements of economic development with occupational health, safety and environmental management needs aligned to traditional cultures and traditions.

FNSC-BC’s mission is to support BC First Nations individuals, communities and enterprises in achieving the highest standard of occupational health, safety and environmental management by building internal capacity to manage sustainable step-change in occupational health, safety and environmental oversight.

The First Nations Safety Council of BC intends to accomplish their mission through:

- Promoting sustainable step-change while honouring traditions and cultures;
- Developing a competent and confident workforce where workers are well trained and empowered to complete work in a safe and healthy manner;
- Ensuring companies operating on First Nation’s land have functioning safety programs and policies that meet and exceed regulatory requirements and that they are accountable to operational oversight by the FNSC-BC members;
- Establishing relationships with industry, governments, educational institutions and other associations to support research and develop strategic action plans addressing First Nations concerns specific to occupational safety and health.
The First Nations Safety Council of BC’s core values and guiding principles are founded on:  

**R.E.S.P.E.C.T.**

**Relationships.**

FNSC believes that maintaining respectful relationships is fundamental to the achievement of our shared vision. FNSC commits to fostering effective working relationships between one another and with outside industries and agencies underpinned by: trust; honesty; understanding; teamwork; and mutual support.

**Empowerment.**

FNSC has the historic opportunity to achieve transformative change in First Nations occupational safety and health, and an obligation to make the most of this opportunity. This will require a focus on capacity development opportunities from within the FNSC and through the partnerships with industry, educational institutions and government agencies.

**Social Responsibility.**

FNSC decision making must reflect the best interests of all First Nations, and are committed to make room for everyone in the process. This will require loyalty to one another and the shared vision, upholding and supporting our roles, responsibilities, decisions, and processes, and maintaining and nurturing unity and accountability.

**Prevention.**

FNSC believes that all workplace injuries and fatalities are preventable and predictable. FNSC is committed to support proactive continual improvement of practices and support efforts to develop and implement new methods, procedures and technologies that have the potential to improve occupational safety and health outcomes.

**Education**

FNSC understands that the key to sustainable success lies with those who come behind us. Through Legacy Development Fund and working with educational institutions and industry partners, FNSC will strive to prepare future generations to progress and build upon the foundations they have created.

**Culture**

FNSC is here because of those that came before them, and to work on behalf of First Nations. FNSC draws upon the diverse and unique cultures, ceremonies, customs, and teachings of First Nations for strength, wisdom, and guidance.

**Trust**

FNSC believes that trust is a basic right and not something that must be earned. In order to maintain trust we must be committed to treating each other with dignity, being responsive to one another with transparent communications, and respecting that each entity has their own respective processes and practices.
3. Connectivity Enabled Workplace Safety Benefits to the First Nations Communities

The First Nations Safety Council of BC will leverage connectivity to supply digital communication and online data access, distance training systems, remote monitoring and electronic contractor management tools to support their members in achieving or exceeding regulatory compliance while having the ability to monitor the occupational health, safety and environmental performance of their businesses, joint venture partners and/or contractors working on their behalf or in their territories.

Utilizing these resources and electronic data bases the First Nations Safety Council members will have the ability to identify, share and manage information on contractors, suppliers, and industries working on their land and in their traditional territories.

Safe Nations Certification

Safe Nations Certification is designed to act as a contractor management and relationship communication tool which will be utilized by member nations to support occupational health, safety and environment management oversight for projects involving their people, corporations or communities and any work by third party groups taking place on their land or in their territories.

The five elements of the Safe Nations Certification program will rely heavily on broadband connectivity to ensure seamless, user friendly and financially responsible access to protocols and resources.

The five elements in development are:

<table>
<thead>
<tr>
<th>Management Systems Assessment</th>
<th>Cultural Training and Awareness</th>
<th>Worker Training and Capacity Building</th>
<th>HSE Monitoring, Measurement and Verification</th>
<th>Resource and Data Sharing</th>
</tr>
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Management Systems Assessment

Member Nations and their economic development enterprises will have access to online programs and support designed to ensure their contractors and joint venture partners meet or exceed any health, safety or environmental requirements outlined in contracts or as established by leadership.
Cultural Training and Awareness

Access to effective connectivity regarding the cultural training and awareness element of Safe Nations Certification is essential in three protocols, cultural sensitivity, traditional environmental aspects and historic site awareness.

Cultural sensitivity requires contractor and joint venture partners (and any others directed by their host Nation) to complete two training programs. The first being the online Indigenous Cultural Safety Training, such as the SAN’AS five hour program developed by the Provincial Health Services Authority of BC. This program is an overview of BC First Nations history and issues resulting from colonialism.

The second training portion will be developed on a Nation by Nation basis and be specific to that Nation’s culture, traditions and environmental sensitivities. This portion may or may not be available electronically but connectivity is required for each Nation to participate remotely in the development of the protocol.

Environmental aspects and historic sites awareness is Nation specific and requires electronic GIS mapping capabilities and online asset management tools to identify historically sensitive areas and sites in relation to asset management and activity interface.

Worker Training and Capacity Building

Training and Certification for safe operations in various workplaces and industries is a key foundation to a healthy and safe work environment.

The First Nations Safety Council of BC will establish a catalog of online internal capacity tools and processes requiring connectivity to outside resources and agencies.

Working in cooperation with Safe Nations Certified companies and Legacy Partners, member Nations will have access to an online “Job Bank”.

Sample Hazardous Material Transport Management System with GIS.
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This will allow members to access business and job opportunities. In addition to this our general members will have the opportunity to create a profile within our “Resource Bank” which will allow business members access to the contact information for Indigenous individuals and businesses highlighting their skills, training, certificates, etc, all of which helps connect them with available work and economic development opportunities.

Examples of online training available:

- Joint Health & Safety Committee training
- Supervisor Safety Management
- Supervisor Health & Safety Training
- Preventing Workplace Violence
- OH&S in Small Business
- Young or New Workers
- WHMIS
- Cultural Alignment part 1
- The Safe Legacy of Reporting
- Transportation of Dangerous Goods (TDG)
- Injured at Work – Cared for at Work
- Provincial / Federal OHS Regulations

Safe Legacy Partners Program

Aboriginal youth represent the fastest growing demographic in Canada, and the country is experiencing skills shortages in various sectors and regions.

Continuing our relationship with WorkSafeBC and a variety of Legacy Partners and corporate members, the First Nations Safety Council of BC will support internal capacity building through the Safe Legacy program. The program will provide members access to opportunities in post secondary education and various on-job trades training, building the internal capacity of the communities and preparing young and new workers to safely become the leaders of tomorrow.

Many of the programs offered require access to online resources and job banks.

HSE Monitoring – Measurement - Verification

Examples of Effective Management of Workplace Safety Utilizing Digital Communication

Corrective Actions Assessment Data
Worksite Verification Scheduling
Management of Change
Lessons Learned Data
Hazard Alerts

Corrective Action Tracking and Verification

Continuous Improvement Activities Targets/Goals

Preventative Maintenance Scheduling
Joint Committee communications
Worksite inspection scheduling
Management Reviews
Audits / Inspections

Site Visit Data
Risk Assessment
Statistical Analysis
Compliance Tacking
Capacity Progression
Impact/Benefit Tracking

Corrective Action

Digital HSE Management

Leading / Lagging Indicator Tracking

K.P.I. Monitoring and Evaluation

TRIR / TRIF
Person Hours
Safety Meetings
Near Miss Reports
Hazard Identification
High Potential Precursors
In an age of economic development, utilizing complex tools, machinery and sophisticated workplace operations requires the ability to detect and respond proactively utilizing integrated monitoring, alerts, notifications and responses.

Monitoring and alert communication also allows for the prompt response to the incidents in the workplace as well as coordinated efforts to response and recovery.

Strategic planning, tracking and data collection is critical to ensuring safety management efforts are effective in achieving desired step change and continuous improvement results. Members will benefit by having the ability to connect directly with the First Nations Safety Council of BC advisors and programs and share the improvement opportunities identified with joint venture partners, contractors and other members undertaking similar economic development projects.

**Resource and Data Sharing**

**Value of Digital Information Systems Access and Communication in the Workplace Safety**

- Digital Documents and Templates for Safety Policies and Standards Relevant and Appropriate to the First Nations
- Certification Database and Access to Certifications
- Access to Updated Hazard Databases
- Digital Emergency Management Plans
  - Up to date online OH&S (Occupational Health and Safety) manuals and procedures
  - Online Risk Management and Tracking Systems
  - Access to Recovery, Claims and Insurance Systems
  - Online and digital Safety Checklists and Forms to effectively record the inspections and actions
  - Digital records for Audits and Operational histories
- Continuous Training and Online access to Safety Procedures and Protocols
- Digital WHMIS (Workplace Hazardous Materials Information System) Access and Interaction
- Safety Incident Reporting, Monitoring, Root Cause Tracking and Prevention Systems
- Online Certification of First Nations Workers and Businesses
- Real-time ability to manage emergency workplace incidents and get coordinated support and containments

Through the Safe Nations Certification program Nation members will have access to online data bases linking them to contractors and potential joint venture partners who meet the requirements of Safe Nations and share project information, such as hazard alerts, incident reports and root cause finding with other members and industry stakeholders.
Indigenous business members will also have electronic access to economic development opportunities and be identified as Safe Nations Certified giving them a competitive advantage when bidding contracts with other nation members, industry and government projects scheduled for their territory thus creating employment opportunities for local indigenous workers.

Individual members will also have access to online job banks informing them of opportunities for employment and allowing them the ability to upload electronic profiles outlining their skills qualifications and availability which can be accessed by industry members and our Safe Legacy partners.

Further benefits to online data access include the ability to, access to regulatory support from organizations such as WorkSafeBC, Federal Department of Labour, Canadian Centre for Occupational Health and Safety, Certificate of Recognition Certifying Partners, the First Nations Health Authority and other service providers and stakeholders.

First Nations communities and businesses will be better able to monitor and coordinate with the industries, companies and government agencies operating in their communities ensuring safe operations specific to their worksites’ hazards and risks.

The ability to share relevant and effective safety policies, practices and methods among the communities and First Nations businesses will also bring a stronger solidarity and value proposition to the regional economies and enable the fast growing First Nations workforce to contribute to the industries and economies that may not have been accessible due to the lack of connectivity.

**Recovery and Rehabilitation**

Recovering from workplace injuries and returning to work is a journey which can be assisted by having access to programs such as Vocational Rehabilitation, Return to Work Assist and Recovery at Work. Access to these types of online resources and digital information is critical in guiding the injured worker through the steps, activities and monitoring required for a timely return to work.

Online access and interaction with claims and insurance systems will also provide the worker access the resources and supporting recovery and return to work.

With digital knowledge assisted programs, the worker’s management, supporting staff and community can monitor and assist in the recovery and relevant safe reintroduction to the workplace.
4. Technology Overview

This section highlights the systems and related applications and their associated bandwidth requirements in the areas of Workplace Safety Management:

<table>
<thead>
<tr>
<th>Workplace Safety related Online Broadband Internet Access</th>
<th>Bandwidth Requirement for an Average First Nations Community in BC.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Management and Access of Occupational Health and Safety (OH&amp;S) policies and plans</td>
<td>1.5 Mbps</td>
</tr>
<tr>
<td>Safety Training and certification for the Workers</td>
<td>5 Mbps</td>
</tr>
<tr>
<td>Workplace Safety Alert, Notification and Response Systems</td>
<td>1.5 Mbps</td>
</tr>
<tr>
<td>Workplace Hazardous Material Information System access and operation with specific GIS data</td>
<td>5 Mbps</td>
</tr>
<tr>
<td>Access to Industry and Company and Worker certification databases and management</td>
<td>1 Mbps</td>
</tr>
<tr>
<td>Access to Recovery, Claims and Rehabilitation Systems and data</td>
<td>1 Mbps</td>
</tr>
<tr>
<td>Totals</td>
<td>15 Mbps</td>
</tr>
</tbody>
</table>

Highlight of Infrastructure Cost categories to sustain access to the data and management systems:

- Cost of baseline bandwidth network connections: Cost to subscribe to a network service for the broadband service is also required in order to ensure digital access is available on an ongoing basis.

- Cost of technology ever-greening and refresh: network equipment requires a refresh and upgrades in cycles, ranging from three to five years.

- Cost of training and certifications on maintaining and administering the networks and systems
## 5. Glossary

<table>
<thead>
<tr>
<th>Terms</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>B.C</td>
<td>Province of British Columbia</td>
</tr>
<tr>
<td>FNSC-BC</td>
<td>First Nations Safety Council – British Columbia</td>
</tr>
<tr>
<td>GIS</td>
<td>Geographical Information Systems</td>
</tr>
<tr>
<td>HAZMAT</td>
<td>Hazardous Materials</td>
</tr>
<tr>
<td>Mbps</td>
<td>Mega Bits Per Second</td>
</tr>
<tr>
<td>OH&amp;S</td>
<td>Occupational Health and Safety</td>
</tr>
<tr>
<td>HSE</td>
<td>Health Safety Environment</td>
</tr>
<tr>
<td>SMS</td>
<td>Short Messaging System</td>
</tr>
<tr>
<td>WHMIS</td>
<td>Workplace Hazardous Materials Information System</td>
</tr>
<tr>
<td>KPI</td>
<td>Key Performance Indicator</td>
</tr>
</tbody>
</table>