

Orientation 4 – Technologies

Context:

This orientation aims to improve community and school accessibility to technologies, and facilitate their use through optimized ICT and connectivity, and improved services offered by the help desk. Access to connectivity contributes to the local development of First Nations communities because it promotes the use of cutting-edge technologies.

The help desk was created to meet the technology needs of FNEC-member and non-member communities. The number of services offered has expanded over the years and currently comprises a wide range, from technical support to the collective representation of interests through the establishment of partnerships. The help desk’s clientele is made up of schools, education services, other public services in the communities (members or not) and First Nations organizations. Help desk services will be streamlined in order to be able to respond efficiently to current and future needs.

The use of information and communications technologies (ICT) is essential to respond to the needs of students, teachers, schools and communities. This approach will contribute to improving the quality of services and encourage the integration of ICT in schools.

To implement ICT, communities must receive support in this highly specialized field through the development of long-term strategic plans that include an evaluation of cost and needs in terms of FNEC representation.

Implementation considerations:

- The FNEC is a pioneer in this field;
- The FNEC has installed interactive whiteboards in more than 200 classrooms and principals participated in the hiring and training of resources;
- The FNEC managed the installation of video conferencing systems in 31 communities and over 100 First Nations organizations;
- The FNEC aims to ensure fibre optic installation in 21 communities and is responsible for the management and improvement of fibre optic networks;
- The FNEC is constantly on the lookout for new products in the field of ICT to provide cutting-edge equipment and services to First Nations communities.

Objectives	Methods	Results
<p>4.1 The FNEC provides access to equitable, cost-effective and strategic technical support and ICT services that meet local needs including consultation and development support for schools and communities.</p>	<ul style="list-style-type: none"> • Develop promotional material that describes services available to schools and communities. • Organize consultative sessions with schools and communities aimed at supporting local and strategic development and meet support service needs. • Implement a help desk management system at the FNEC to annually report on statistics for help desk support provided to communities. • Design a strategic planning tool to support schools and communities develop a strategic ICT plan. (i.e. ICT user and access policies, equipment standards, community management.) 	<ul style="list-style-type: none"> • Schools will maximize the use of FNEC technology services and other public sector organizations will be informed of the service offer, including the toll-free support line. • The FNEC will take a flexible and customized approach to support service delivery that corresponds to local realities and strategic needs. • Each community will receive statistical information from the FNEC on help desk requests, including their origin, type, solution, and status. • The FNEC will have designed and promoted a toolbox set of services offered to schools and communities to help identify services that meet local ICT strategic needs and priorities.

	<ul style="list-style-type: none"> • Provide tools and management services to facilitate the design of distance learning programs (online courses). • Promote exemplary technology integration practices and educational activities, and highlight achievements in schools and communities. 	<ul style="list-style-type: none"> • The communities will benefit from FNEC support to design educational distance learning applications using advanced, cost-effective technologies. • The FNEC will promote and support distance learning services for schools and communities (i.e. Adobe Connect online learning platform, videoconference technology). • The communities will share their best practices.
4.2 The FNEC facilitates the procurement of ICT equipment and software.	<ul style="list-style-type: none"> • Support and facilitate the procurement of ICT equipment and software by member schools and provide advisory services. • Develop tools for communities to facilitate their acquisition of equipment (i.e. equipment standardization). • Research and investigate manufacturer offers that are regional in scope (i.e. Xerox, Canon). 	<ul style="list-style-type: none"> • Cost savings to schools will be maximized through economies of scale. • Equipment standardization will enable schools to plan their acquisitions based on their strategic priorities. • A complete in-depth analysis of manufacturer offers will be conducted before being presented in assembly.
4.3 The FNEC continues to support and develop special projects, and conduct the required research to facilitate ICT integration and management.	<ul style="list-style-type: none"> • Support school acquisition and implementation of iPad technology including Apple management solutions like Mobile Device Management (MDM), the Device Enrollment Program (DEP), and Apple Configurator, and provide the necessary training. • Help schools maximize savings on iPad application purchases via the Volume Purchasing Program (VPP) from Apple Education Canada. • Coordinate with schools the deployment and assignment of Microsoft Office 365 licenses to students. • Provide support for school acquisition of SMART Boards, software upgrades, and equipment repairs. 	<ul style="list-style-type: none"> • School consultations on selecting and implementing the appropriate iPad management solutions will be held. • Schools will benefit from technical and management support for iPad deployments. • Consultation and training on Apple products will be coordinated for schools. • Schools will receive assistance from the FNEC to register in the Volume Purchasing Program (VPP). • Schools will benefit from FNEC support for the implementation, management, registration, and student distribution of Microsoft Office 365 licenses. • Schools will benefit from FNEC support for the integration of SMART Boards in classrooms including SMART Notebook software and equipment maintenance. • The FNEC will seek optimal pricing for schools to replace outdated LCD projectors with the latest in ultra-short throw technology.

<p>4.4 The FNEC is responsible for managing New Paths – ICT and Skills Link youth employment program activities and services.</p>	<ul style="list-style-type: none"> • Complete all ministry proposals and reporting obligations for the New Paths – ICT and Skills Link programs. • Develop a business plan for technical service operations for non-educational clientele. • Support and manage the regional broadband network. • Support network management and local technicians. • Support wireless technologies in the classroom and school environments. • Ensure school regional education agreements are maintained. • Skills Link Program: • Develop a promotional package that communities could distribute locally. • Organize two three-day ICT workshops (in August 2015, and November 2015). 	<ul style="list-style-type: none"> • The FNEC will advocate and present to the ministry the gap in funding for technology and the current underfunding being provided via the New Paths – ICT program. • All non-educational clientele of the FNEC will cover their own service fees. • The communities will benefit from FNEC support to develop and secure the required resources for fibre optic connectivity in their schools for both the network and local aspects. • Schools and the communities will benefit from network management support. • The FNEC will obtain the resources needed to ensure that every school has 100% Wi-Fi coverage. • All regional agreements for essential school software (Microsoft Office, Windows, McAfee anti-virus, and SMART Advantage upgrades), will be maintained. • The FNEC will maximize interest and involvement in the program. • Youth workers will receive training on the technologies used in education environments and will develop essential skills.
<p>4.5 The FNEC supports the development and improvement of broadband infrastructures since communities require solid, viable and cost-effective broadband infrastructures to meet current and future needs. These infrastructures are divided into three categories.</p>	<ul style="list-style-type: none"> • Give presentations and hold consultations in communities to identify, update, and develop strategic objectives for broadband infrastructures in all three categories. • Work towards community ownership of local fibre optic networks, including maintenance costs. • Work towards improving the external network for every community to raise the minimum standard for community fibre optic networks to 100 Mbit. • Support schools and communities in establishing strategic partnerships for broadband infrastructure development or expansion costs in any category as required. 	<ul style="list-style-type: none"> • Community leadership and stakeholders will receive the necessary background information to support the local decision-making process. • The FNEC will receive mandates from communities to seek financing for broadband services. • All FNEC-member communities will be owners of their public sector infrastructures to provide more cost-effective and manageable environments. • The 100 Mbit minimum standard for external networks will be implemented enabling Internet service across community fibre optic networks to be provided.

	<ul style="list-style-type: none"> • Provide complete Wi-Fi coverage in schools to support mobile and portable computing environments. • Provide schools and communities with the necessary resources to maintain and acquire broadband infrastructures, equipment, technical support, and training. 	<ul style="list-style-type: none"> • The communities will receive advice and assistance from the FNEC on the proposal submission process for external network construction projects where needed in order to reach the 100 Mbit standard. • The communities will receive network management support services from the FNEC. • Commitment from stakeholders will be requested to foster potential funding opportunities for communities (i.e. AANDC, Health Canada, Industry Canada). • FNEC-member schools will benefit from 100% Wi-Fi coverage in their school including the integration of web filtering rules via firewall technology. • The FNEC will advocate the need for new ICT resources and investment at the community level.
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