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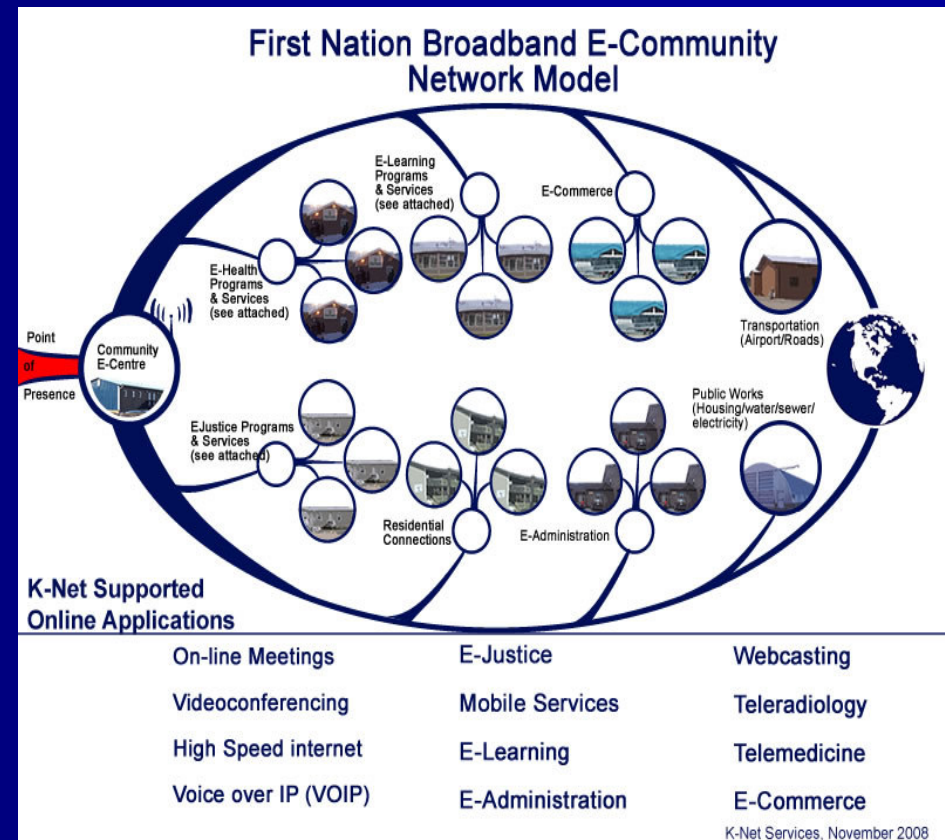
Telemedicine Workshop, March 24, 2009
Sioux Lookout, Ontario

Presentation by:

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Background

- Kuhkenah Network (K-Net) is the network hub supporting broadband connectivity to approximately 80 First Nations across 3 provinces and connecting these communities to many services and government agencies.
- This network has been build on the drive of the First Nations communities and the partnerships with many Federal and provincial agencies and First Nations organizations.

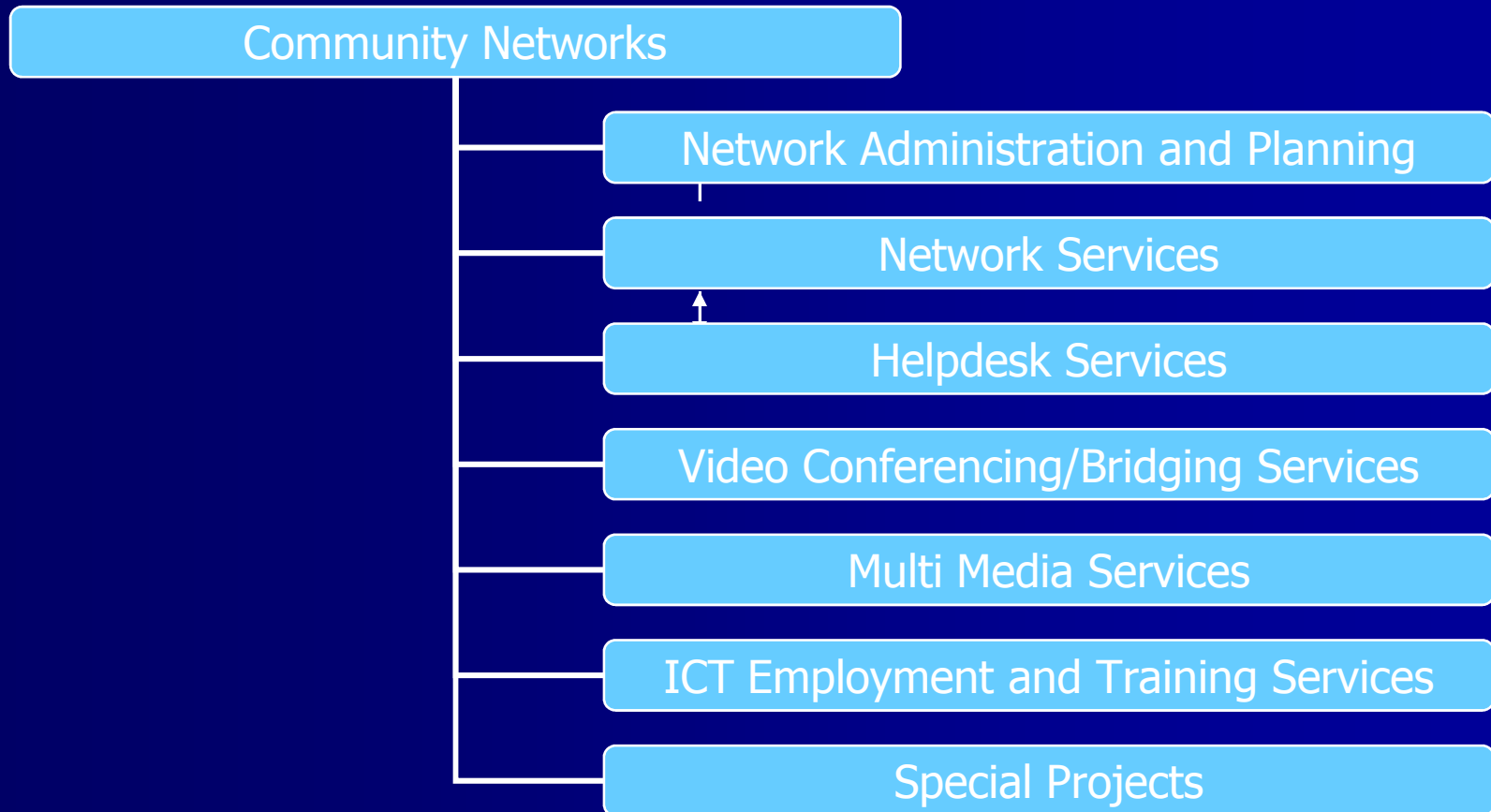


Presentation Objectives

- Inform participants about Kuhkenah Network (K-Net), its scope, aims and role
- Highlight K-Net assumptions and dependencies with participants
- Share information about K-Net's progress against objectives
- Share K-Net proposed next steps



K-Net Business Areas



Knet Coverage



K-Net Vision

1999

- **The Deer Lake, Fort Severn, Keewaywin, North Spirit Lake, and Poplar Hill First Nations share a collaborative vision for community wellness and development. The Kuhkenah Network envisions a geographically contingent cluster of First Nations sharing a common telecommunications resource. The Kuhkenah Network of Smart First Nations will be an integrated scalable network where connectivity is managed, applications converge and where citizens, learners, clients, and professionals interact.**
- **Kuhkenah 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.**
- **Kuhkenah 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.**

K-Net Vision

■ 1999

The model we are suggesting will have an expanded community integrated network that will tie into the community wide area network. Depending upon the traffic generated from the community, the inter-community connections can be designed up to T1 capacity.

■ 2009

The Kuhkenah network (K-Net) is a managed broadband network connecting First Nations communities, services and people. The network supports the development of online applications that combine video, voice and data services requiring broadband and two way symmetrical connectivity solutions.

The long term vision is to establish local community networks linked across the country to other networks that share and distribute broadband services and programs that benefit the local community.

Any community around the world that wishes to create a local network will have to respond to its own unique geographic, political, financial and social situation.

K-Net Tactical Priorities

- Working with First Nations in developing broadband connections and e-applications to support the delivery of services to schools, health centres, band offices, community centres and homes in First Nation communities.
- Building local First Nation capacity to develop, operate and support community ISP's, broadband applications and communication technologies to address community needs and priorities.
- Establishing and supporting the development of effective and sustainable partnerships with First Nation communities, telcom service providers, funding programs, service organizations and governments.

K-Net 09/10 Deliverables

- Network sustainability – agreements with telemedicine (HC), INAC – Schoolnet, OLA – FN Libraries, Ontario eHealth – FN health centres, Ministry of Justice – video conferencing court services, First Nation communities
- First Nation Network development – cable plant builds
- Helpdesk for Schoolnet, telemedicine, community circuits
- Cellular project – KO communities and Round Lake FN
- Multi media projects – website/portal development
- Video Conferencing Services - bridging multiple sites
- Data Management – community data bases to support health, education, band administration
- Schoolnet programming – youth workers in schools, online education for grade 7 & 8 and for youth workers

K-Net & Telemedicine

- A reliable, managed network service is key to a First Nation Health Infostructure
- Local technical support provides required effective operations and maintenance of equipment and network services
- Increased bandwidth demands to accommodate additional e-health applications



Regional Telemedicine Assumptions

- **There are currently 26 telemedicine sites and this will expand to an additional 25 telemedicine sites once funding is confirmed.**
- **eHealth Ontario will continue to use the K-Net network to link provincial service providers to First Nations.**
- **eHealth Ontario will continue to procure K-Net circuits.**
- **KOTM will require increasing high level of service desk requirements.**

e-Health Dependencies

- Federal and provincial partnerships are based on yearly commitments.
- Telcos are responsible for network upgrades and maintenance for the infrastructure that provides the bandwidth to the communities.
- Additional e-health applications require more resources for network support in the First Nations, for example homecare services.

Current State

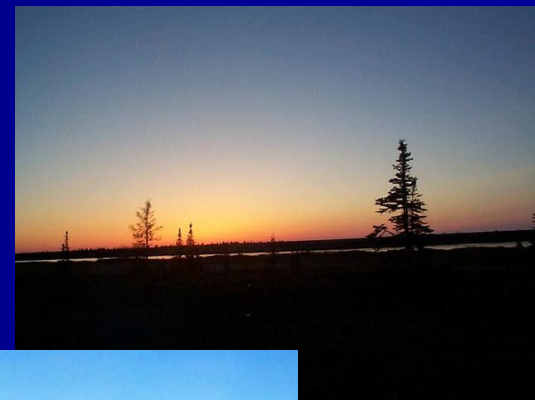
- K-Net is a comprehensive, reliable, secure and scalable network that is operational today providing broadband connectivity to First Nations. K-Net also has a fibre optic municipal network in Sioux Lookout and a wireless broadband loop in Thunder Bay and Timmins to connect First Nation organizations and service providers to the First Nation communities on the network.
- A VPN tunnel is in place on the network today providing a connection to the Ontario Telemedicine Network telemedicine network's VPN concentrator which provides access to more than 70 hospitals located across the province and to the Health Science centre in Winnipeg.
- High speed data, IP telephony, IP videoconferencing services and application development are all being delivered and supported over the present network.
- Experienced and knowledgeable staff are in place supporting the use of the network along with helpdesk services for OTN (with a Service Level Agreement in place) and INAC's First Nations SchoolNet program.

Future State

- Robust, reliable, locally owned, supported and managed network services
- Mobile applications supporting individual and community health and wellness
- First Nation health providers and healers networking with other First Nations using ICTs
- Increased bandwidth in each First Nation being provided by First Nation owned fibre cable
- First Nation owned and managed health data management system providing leaders and health providers with the critical decision making information
- Innovative and sustainable network services addressing local needs and priorities

Functional Requirements

- Community owned and managed
- Community capacity building and training
- Interoperable
- Scalable
- Sustainable
- Secure and private
- Regional First Nation eHealth Governance model
- Program based for long term viability



Discussion

Questions & Answers....



Thank you!

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