> BUSINESS MADE **SIMPLE**

WiMAX Case Study: NETAGO WIRELESS

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ITU-BDT Regional Seminar on Broadband Wireless Access (BWA)
for rural and remote areas for Africa

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NØRTEL

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Objective

> Provide an overview of a Nortel WiMAX trial in rural Canada

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Outline

> Background on service area
  • where it is
  • the Special Services Area Board
  • a few photos ...

> Background on Netago Wireless

> Why Netago chose WiMAX

> Trial is a success!
  • video

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A Few Facts on Special Areas

> Population: 12,000: growing across Alberta except for Special Areas Board (SAB)

> Area: 8,000 square miles (20500 sq. km), arid terrain

> Industries: farming, ranching, oil and gas

> Objective: attract new businesses and families to SAB, retain future generations

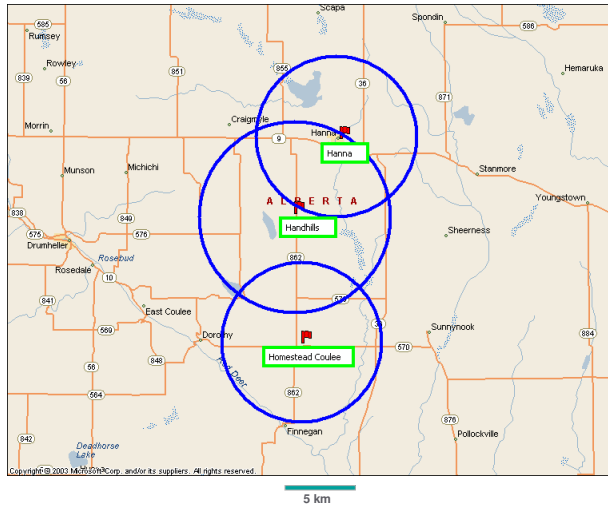> Netago Vision: Provide high-speed data services to residents of rural Alberta at comparable prices to urban areas

Broadband services is a missing critical economic driver

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Initial Trial Service Area

The NETAGO WiMAX network operates in the 3.5GHz band and will be made available to ~80% of SAB residents by the end of summer 2006, extending the service area of the Alberta SuperNet Project **www.albertasupernet.ca** which is a provincial government initiative designed to bring affordable broadband services to ~4,200 government, health, library and educational facilities in 429 communities across Alberta.

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5 km

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Special Services Area Board - Synopsis

> Special Services Area Board (SAB) is a unique rural municipal area covering ~2.1 million hectares in south-eastern Alberta.

> Responsible for administration for all municipal services plus leasing of public lands in the area. 60% is public land leased for grazing, cultivation or irrigation. SAB also operates 5 community pastures: grazing for 9,000 cattle.

> Responsible for all local roads, comprising some 5,000 miles (8,000 km) within the area.

> Set up for land use control in the 1930s, continues to operate the area for the betterment of the land and the people from within.
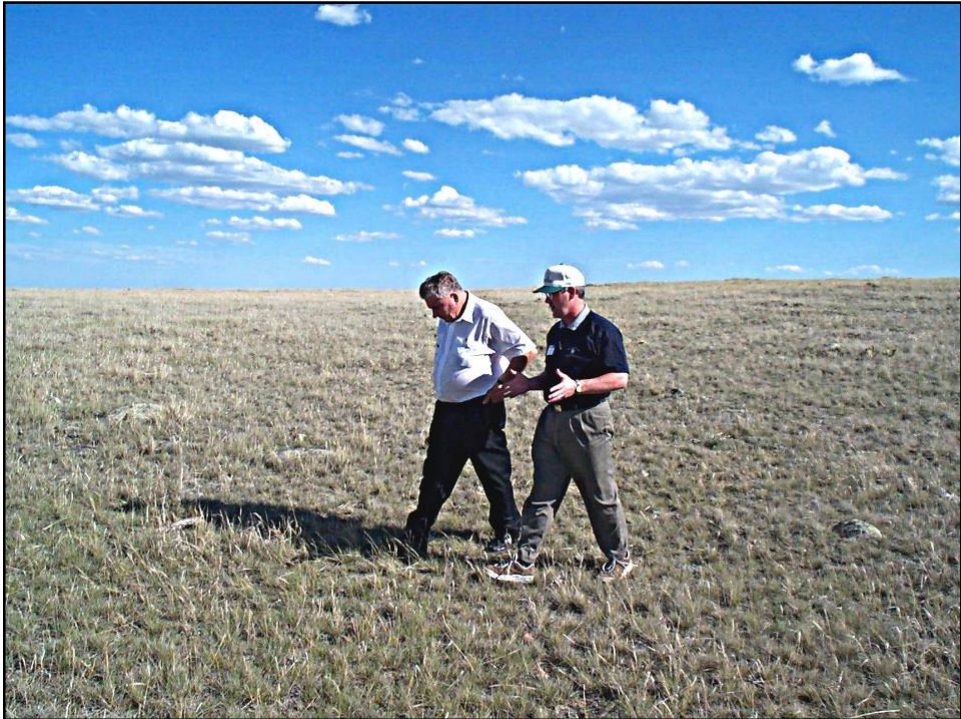
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Creating NETAGO Wireless

> 2003: Netago Wireless opens doors

> 2004: Options for broadband connectivity remain cost prohibitive

> 2005:
  • Alberta SuperNet launches - fiber connections for all of Alberta
  • Netago establishes partnerships
    • Upstream provider: Alberta SuperNet
    • Municipal government: Special Areas Board
    • Equipment manufacturer: Nortel

> 2006: WiMAX trial and network launch

Partnerships are essential to make the impossible probable

Why NETAGO Chose WiMAX

> Non-proprietary solution

> Economies of scale

> Quality of service

> Extend existing coverage by 50%

> Lower cost to consumers

> Enable VoIP, prioritize business over end-users

WiMAX is THE technology to make broadband happen for this area

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Video 1

Macromedia Flash Player 8
File View Control Help

BROADBAND WIRELESS > MADE SIMPLE

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What we did
Trial exceeded customer expectations

Timing:
> Summer 2005: RFP requested
> Dec 2005: Equipment arrives
> Jan 2006: Trial launched

Implementation:
> Cover Hanna and 2 rural areas
> Trial with 3 towers / 3 BTSs
> Omni directional antennas
> 35 outdoor and 8 indoor subscriber units

Results:
>Ranges up to 20 km and 15 km to outdoor and indoor units
>Speeds of 1.5 / 2 and 3 Mbps, depending on the needs
>Tested streaming video at 8 Mpbs

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Success Stories

> Residents: office from home, online banking, distance learning

> Ranchers: agricultural research, buy/sell cattle

> Oil company: company LAN speeds of 2 Mpbs increased work productivity

> Calgary Stampede: 2 Mpbs enables transfer of high-bandwidth data

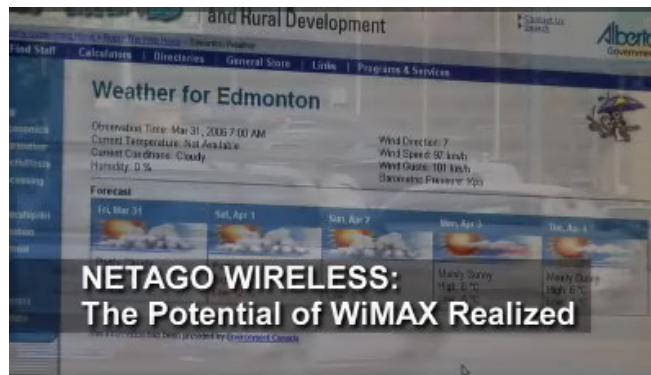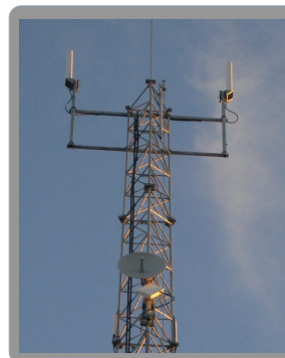**Customers are delighted**

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Video 2

NETAGO WIRELESS:
The Potential of WiMAX Realized

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Learnings and Advice

> Spectrum
  - How do you get it?
  - Partners can help
  - Work closely with Regulator

> Services, such as site engineering and selection
  - Wireless experience is a major plus

> Partnerships
  - Relationships can make it or break it

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What's Next?

> Commercial launch summer 2006

> Expansion beyond SAB area

> Trial new technologies with Nortel

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Thank you! Merci!

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