Bringing broadband to underserved rural MB communities
Purpose of this update

- Clarify approach or model to bring broadband to underserved rural MB communities

Overview

- What do we want to do?
- What’s needed to connect communities?
- What do we know?
- What is missing?
- How do we go forward?
What do we want to do?

• Bring broadband to under-served rural MB communities
• 463 rural centres & RM
• 420 connected
• 40+ under-served
  – 17 below 1.5 Mbps

21,728 pop. (147-2493)  
FN pop. 7865 (x8)
MB Communities without Broadband

1 ARGYLE (1,073)
2 BADEN (Part of Division No. 19)
3 Balmoral (Part of Rockwood; 7,692)
4 BARROWS (no data)
5 BIG BLACK RIVER (Part of Division No. 19)
6 BISSETT (Part of Division No. 19)
7 BROCHET FN (306)
8 CLEARWATER LAKE (Part of Division No. 21)
9 CORMORANT (Part of Division No. 21)
10 DAWSON BAY (Part of Division No. 19)
11 ETHELBERT RM (383)
12 FALCON LAKE (Part of Division No. 1)
13 FISHER BAY (Part of Division No. 19)
14 GILLAM (1,209)
15 GRAND RAPIDS (336) / GRAND RAPIDS FN (651)
16 GUNTON (Part of Rockwood; 7,692)
17 HERB LAKE LANDING (no data)
18 HOMEBROOK (Part of Division No. 19)
19 ISLAND LAKE (Part of Wasagamack FN; 1,160)
20 KELSEY (CARROT VALLEY) RM (2,453)
21 KELSEY (WANLESS) RM (Merged with Carrot Valley)
22 LITTLE GRAND RAPIDS FN (796)
23 LOON STRAITS (Part of Division No. 19)
24 MOUNTAIN (SOUTH) RM (570)
25 MYSTERY LAKE LGD (147)
26 NATIONAL MILLS (Part of Division No. 19)
27 OPASKWAYAK CREE FN (2,578)
28 OXFORD HOUSE FN (1,947)
29 PELICAN RAPIDS FN (Part of Division No. 19)
30 PIKWITONEI (Part of Division No. 22)
31 POINTE DU BOIS (Part of Division No. 1)
32 POPLARVILLE (Part of Division No. 19)
33 POWELL (Part of Division No. 19)
34 RED DEER LAKE (Part of Division No. 19)
35 SALT POINT (Part of Division No. 19)
36 SHERRIDON (Part of Division No. 21)
37 STEVENSON ISLAND (no data)
38 VALLEY RIVER FN (427)
39 WEST HAWK LAKE (Part of Division No. 1)
40 WESTGATE (Part of Division No. 19)

Pop. 2011
What do we want to do?

Connect under-served communities

- Leaders – Regional
- Access
- Leaders – Providers
- Users
- Strategic impact with social marketing
- Uses
- Leaders – local & technical
What do we want to do?

**Integrated Action Framework**

- **Access to technology**
  - Available, affordable, adequate speed, limited markets

- **Leadership engaged**
  - Regional, Providers, Local
  - Local techn person, sales, training & repairs, Jack-of-all-trades

- **Enhance users skills & knowledge**
  - Local techn + govt services, youth, individuals

- **Uses**
  - Growing users, market penetration
  - Increase demand for bandwidth, 3-5 years
What do we know?

- Coverage varies
- Rural gaps – dynamic situation
- Providers narrowing rural gap
- Economic impacts
- ROI of connecting Canadians
- Summary framework
What do we know? Coverage varies

Basic coverage

[Map of Canada showing coverage areas]
What do we know? Coverage varies

3G

Source: Bell
What do we know? Coverage varies

4G 21 Mbps (future extension)

Source: Bell
What do we know? Coverage varies

4G 42 Mbps

Source: Bell
What do we know? Coverage varies

- Waterways, railways, road ways, info-hwy
- Major improvements in ITC services (Hon. Paradis)
  - 11 new telecom satellites (Hon. Bernier)
- 2 in 2012

Telecoms major contributor to GDP

OVUM: “The Benefit of the Wireless Telecommunications Industry to the Canadian Economy” April 2011

What do we know? Rural gaps

• $3.27B govt invested since 2000 (MTS 2010)

• 2.1 M rural households (HH) in high cost-serving area (CRTC 2010)
  – 700k HH <1.5Mbps ‘unserved’ (CRTC 2010)
  – 1.4M HH <4Mbps ‘under-serviced’ (CRTC 2010)

• CRTC approach (2011)
  – Market forces
  – Govt subsidy
  – 2017 @ 5Mbps = aspirational goal

• CER. Contribution-Eligible Revenues (MTS 2010)
  – Now .66% (2%+) (Dauphin March 2012)
What do we know? Rural gaps

Trend line: *Minimum* 1.5 Mbps availability in rural areas may not reach 90% by 2017

(CRTC Annual Monitoring Reports 2004 to 2011, excludes Hi Speed Packet Access)
What do we know? Narrow gap

**NetSet:** connecting underserved communities

- Eastman, Lac du Bonnet
- Carman
- Brandon Area
- Portage la Prairie
- West Interlake/Gypsumville
- Western, Swan River, Dauphin
- Flin Flon, The Pas

(S. Toderash, NetSet)
What do we know? Narrow gap

Xplornet
• Expanding satellite coverage in 2013
• Improving satellite serve to rural and remote areas
• Approach
  – Local leaders
  – Local techn
  – Local pre-paid anchor + HHs
What do we now? Narrow gap

1999 Insurance firm, 7 rural offices, R&D, corporate solution
2000 Commercialize network
2001 Connect Moosomin, Carlyle and Fort La Bosse school Div.
2002 Add 8 schools, 5 towns, 2 institutions
2009 Start 2nd generation technology, 160km fibre, ongoing
2011 Connect all Fort La Bosse Schools with Gigabit fibre
2012 Add 15 offices +1000 clients

S. Andrews CEO
What do we know? Narrow gap

- 10G network
- 28 communities connected
- Data networking, off site backup
- E-business applications
- Video conferencing, VoIP
- CAD, Financial, Medical Imaging
What do we know? Narrow gap

- Alberta’s Supernet
- $300m, essential utility
  - **Goal**: 98% HH connected
  - Rural centres with an anchor (school, hospital, library, justice, govt office) + last mile by market forces
  - **Problem**: last mile too expensive for providers
  - **2011**: fact finding – where is BB? Not? What are the options? Actions

Ab Eco Development Authority 2010.
What do we know? Narrow gap
What do we know? Economic

- Different level impacts
  - Global, national, regional

- BB accelerates innovation
  - New services
  - Improved productivity
  - Attracting employment

- Concentrated impact
  - Health, schools, justice, financial, manuf.

- Positive impacts after 4 yrs in businesses with training/learning program

- An increase business penetration of 5-6% means .6-1.8% job growth

(Katz 2009)
What do we know? Economic

**South Dundas, ON**
- 10,500 pop
- Invest $1.3M into fibre
- 62.5 new jobs
- $2.8M bus. expansion
- $140k additional rev
- $7.9M Prov taxes
- $4.5M Fed taxes

(Katz 2009)

**Eastern ON Network**
- Underserved area
- Invest $170M fibre
- Govts ($55M), Local ($10M), ISPs ($105M)
- Revenue sharing (10 yrs)

(Rural Ontario Institute 2012)
What do we know? Economic

Economic impacts
- Construction (direct)
- New jobs (indirect)
- Secondary (induced)

Economic multipliers (Jobs)
- 1.38 – 1.83
- 1.93 – 3.42

Katz 2009: Greenstein & McDevitt 2011

Figure 6. Conceptual view of comparative broadband regional effects

slide23.png
What do we know? 7 factors key

ROI of connecting Canadians

- Increases productivity
- Creates new jobs and opportunities
- Generates new investments
- Enhances our social lives
- Connects families and friends
- Makes communities safer

Source: Bernard Lord, Pres. cwta 2012

Use of BB is a function of:
age, income, family size
(Horrigan 2010)
What do we know? summary

- Rural BB coverage is improving
- Still digital gaps (10%)
- Providers, big and small, are narrowing rural gap
- BB drives innovation, jobs, revenues
- Multiple yrs of impact possible, learning program key
- Economic impact, missed opportunity
- ROI built around 7 factors (B. Lord)
What do we know? Social marketing

- **Goal**: modify behaviours toward a goal (seat belts, not smoking)
- Engage specific grps
- Build critical mass
- Longer term 3-5 yrs
- 3 RDI projects
  - 9000 MB beef producers
  - Water conservation
  - BU certificate
<table>
<thead>
<tr>
<th>Access</th>
<th>Leaders</th>
<th>Users skills</th>
<th>Uses</th>
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<tr>
<td>- Speed (Mbps) of upgrades possible, when, and for which rural communities</td>
<td>- <strong>Local support</strong>: Local govt, Band councils? Businesses?</td>
<td>- <strong>Examples</strong> of training with performance impact</td>
<td>- <strong>Cases</strong> of early adaptation to saturation?</td>
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<td>- Install grps, possible subgrps of 45 communities</td>
<td>- <strong>Tech support</strong> business opportunity? How to attract local techn person(s), Training?</td>
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<td>- <strong>Social marketing framework</strong> to estimate potential users, timeline, partners, and investment?</td>
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<td>- Benchmarks, examples of innovative rural access</td>
<td>- <strong>Coordination</strong> via action plan/install grp</td>
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What is missing?

Integrated Action Framework

Access
- Provider(s)
- Speed Mbps?
- Install groups
- Benchmarks

Leaders
- Regional support
- Local support
- Tech support
- Action plan

User skills
- Training
- Impact examples

Uses
- Baseline of 40+
- Business case
- Social marketing framework
### Integrated Action Framework

#### Access
- **Provider(s)** - determine interest in 40+
- **Speed** Mbps? - establish service goal (5Mbps)
- **Install groups** - 40+ into subgroups
- **Benchmarks** - rural innovation scan

#### Leaders
- **Regional support** - enlarge Rural BB Forum
- **Local support** - define engagement approach
- **Tech support** - scan for 1/install groups
- **Action plan** - governance, steps/install grp

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*What is proposed to go forward?*
### Integrated Action Framework

#### User skills
- **Training**
- **Impact examples**
  - partner(s) – techn, digital literacy
  - performance, transforming

#### Uses
- **Baseline of 40+**
- **Business case**
  - uses trends, anchors, HHs
  - est. savings, costs, econ. impacts
- **Social marketing**
  - strategic engagement / install grp
Next steps

- Clarify scope, timing, budget
- Project team
- Draft work plan finalized
- Start Integrated Action Framework
Thank you

Questions, comments, & discussions