SERVING THE UNDERSERVED: bringing broadband to rural Manitoba communities in need
Outline

Broadband

• What is its impact?
• What is our current state?
• Who is missing out?
• What do we want to do?
What Is Broadband’s Impact? 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 is Broadband’s Impact? 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

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

(Katz 2009)

(Rural Ontario Institute 2012)
What Is Broadband’s Impact? 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
What Is Broadband’s Impact? 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 Is Broadband’s Impact? Summary

- Drives innovation, jobs, revenues
- Multiple yrs of impact possible, learning program key
- Economic impact, missed opportunity
- ROI built around 7 factors (B. Lord)
What Is Our Current State?
Global Broadband Comparison

Average household download speed (Mbps)

<table>
<thead>
<tr>
<th>Country</th>
<th>Average (Mbps)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Italy</td>
<td>5.98</td>
</tr>
<tr>
<td>Global average</td>
<td>13.08</td>
</tr>
<tr>
<td>OECD</td>
<td>15.55</td>
</tr>
<tr>
<td>US</td>
<td>16.01</td>
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<tr>
<td>Canada</td>
<td>16.15</td>
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<tr>
<td>G8</td>
<td>16.34</td>
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<tr>
<td>EU</td>
<td>16.87</td>
</tr>
<tr>
<td>South Korea</td>
<td>35.21</td>
</tr>
</tbody>
</table>

Canada ranks 6th in the G8 & 33rd globally

What Is Our Current State?
Canadian Broadband Comparision

Average household download speed (Mbps)

Canada 16.15

MB is 10th out of the 12 provinces/territories here!

*NFLD did not have enough data to calculate

What Is Our Current State?
Manitoba Broadband Comparison

**What Is Our Current State? Broadband Comparision**

**World Average Upload Speeds**
- Global: 5.28 Mbps
- G8: 6.35 Mbps
- EU: 4.84 Mbps

**National Average Upload Speeds**
- South Korea: 29.93 Mbps
- United States: 4.40 Mbps
- Canada (ranked 67th globally): 2.92 Mbps

**Provincial Average Upload Speeds**
- New Brunswick: 5.59 Mbps
- Alberta: 2.55 Mbps
- Manitoba (ranked 11th nationally): 1.75 Mbps

**Manitoba City/Town Average Upload Speeds**
- The Pas: 3.69 Mbps
- Winnipeg: 2.01 Mbps
- Flin Flon: 0.30 Mbps

What Is Our Current State? Cell Coverage

Basic coverage
What Is Our Current State? Cell Coverage

3G

Source: Bell
What Is Our Current State? Cell Coverage

4G 21 Mbps (future extension)

Source: Bell
What Is Our Current State? Cell Coverage

4G 42 Mbps

Source: Bell
• $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)

• $2-3.5k/HH @ 4Mbps (MTS 2010)

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

• CER. Contribution- Eligible Revenues (MTS 2010)
  – Now .66% (2%+) (Dauphin April 2012)
What Is Our Current State? Rural Gaps

1.5 Mbps broadband in Canada

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)
Manitoba – March 2012

- 463 rural centres & RMs
- 420 connected
- 40+ under-served (10%)
  - 17 below 1.5 Mbps
  - 21,728 people in total
  - First Nation population of 7,865
Who’s Missing Out? 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)

*Based on March 2012 connectivity and including 2011 Census Data*
Who’s Missing Out? Recent Changes

**NetSet:** connecting underserved communities

**Private Public Partnership**
- $15 million invested in Broadband for rural Manitoba
- 50-50 funding with Industry Canada stimulus funding
- Expanded Manitoba’s broadband coverage
- Established an upgradable base – to LTE

(D. Hardy, I-Net Link)
(http://www.mbnetset.ca/)
8 previously underserved communities now have access to broadband.
Who’s Missing Out? Recent Changes

8 previously underserved communities now have access to broadband

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Based on March 2013 connectivity and including 2011 Census Data
What Do We Want To Do?

Connect 32 remaining under-served communities

Access

Leaders – Regional

Users

Leaders – Providers

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 Want To Do?

| **Access** | - **Providers** interested in serving communities  
- **Speed** (Mbps) of upgrades possible, when, and for which rural communities  
- **Install grp**s, possible subgrps of 45 communities  
- **Benchmarks**, examples of innovative rural access |
| **Leaders** | - **Regional support**: Assembly of MB Chief, Fed & Prov Govts? Foundations?  
- **Local support**: Local govt, Band councils? Businesses?  
- **Tech support** business opportunity? How to attract local techn person(s), Training?  
- **Coordination** via action plan/install grp |
| **Users skills** | - **Who trains** businesses? Heavy users? Youth/schools? General pop?  
- **Examples** of training with performance impact |
| **Uses** | - **Baseline** info of current interest or use among 45?  
- **Cases** of early adaptation to saturation?  
- **Social marketing framework** to estimate potential users, timeline, partners, and investment? |
What Do We Want To Do?

**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

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*Slide 26*
What Do We Want To Do?

Integrated Action Framework

<table>
<thead>
<tr>
<th>Access</th>
<th>Leaders</th>
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<tr>
<td>- Provider(s)</td>
<td>- Regional support</td>
</tr>
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<td>- Install groups</td>
<td>- Tech support</td>
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<td>- Benchmarks</td>
<td>- Action plan</td>
</tr>
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</table>

- determine interest in 40+
- establish service goal (5Mbps)
- 40+ into subgroups
- rural innovation scan
- enlarge Rural BB Forum
- define engagement approach
- scan for 1/install groups
- governance, steps/install grp
### What Do We Want To Do?

#### Integrated Action Framework

<table>
<thead>
<tr>
<th>User skills</th>
<th>Uses</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Training</td>
<td>- uses trends, anchors, HHs</td>
</tr>
<tr>
<td>- Impact examples</td>
<td>- est. savings, costs, econ. impacts</td>
</tr>
<tr>
<td>- partner(s) – techn, digital literacy</td>
<td>- strategic engagement / install grp</td>
</tr>
</tbody>
</table>

- Baseline of 40+
- Business case
- Social marketing
What Do We Want To Do?

Integrated Action Framework

Next steps

• Expand Partnership
• Identify Opportunities
• Start Integrated Action Framework
Thank you

Questions, comments, & discussions