Alberta Council of Technologies

"Diversifying Alberta's economy through technology"

Alberta Rural Broadband
Status Report

Presented by:	**Allan Bly (Co-Chair)**
Prepared by:	**Rural Broadband Working Group**
Commissioned:	**ABCtech Board of Directors**

Alberta Council of Technologies

Topics

- **ABCtech's Rural Broadband Role**

- **Rural Broadband Status Report**

- **Barriers to Rural Broadband**

- **Recommendation**

Mission Statement

Alberta Council of Technologies

- **Advocate on behalf of Alberta's technology-based enterprises, entrepreneurs, and industries for the creation of sustainable prosperity in Alberta.**

- **Create venues and opportunities for communication and collaboration between industry leaders and technology entrepreneurs.**

- **Stimulate growth of knowledge-intensive enterprises to diversify Alberta's economy.**

- **Include rural communities as full and integral participants in Alberta's economic diversification.**

Rural Development

- **The "Digital Divide" is not about technology, but access to social and economic opportunity.**

- **Rural communities must be more strategic in their social and economic development.**

- **Rural broadband is a powerful social and economic enabler.**

Rural Development

- **Broadband networks are essential infrastructure for the economies and societies of the 21st century.**

- **Broadband has become essential to attracting and retaining people and enterprises in rural communities.**

Alberta's Prosperity

- **Rural communities are to Alberta as roots are to trees.**

- **Alberta's present prosperity stems from an abundance of carbon, and from the integration of rural and urban centres to harvest and mine, and process and transport raw resources – timber and fibre, wheat and meat, oil and gas.**

- **Alberta cannot grow sustainably in carbon.**

Top Priorities

- Realizing the opportunity of Rural Broadband remains one of Alberta's most critical needs.

- Alberta is prospering, and it is essential that community-building be maintained; that no-one be left behind.

- Rural Broadband is a measure for ensuring that people and enterprises in rural Alberta have access to information, communications and productivity-enhancing Internet-based services.

- Diversification is a safeguard of economic sustainability.

- Rural Broadband is a stimulant for innovation and supplier productivity, supplier competition and regulatory issues associated with rapid changes in technology.

Topics

- ABCtech's Rural Broadband Role

- **Rural Broadband Status Report**

- Barriers to Rural Broadband

- Recommendation

Rural Broadband Report

Rural Broadband Working Group will:

- **Provide recommendations for improving economic and social benefits accruing from availability and application of rural broadband. These may include recommendations for technology and regulatory development.**

- **Propose measures (e.g., a Balanced Scorecard) for conducting an annual status report and recommendations for improving availability of rural broadband in Alberta.**

Working Group

1.	**Allan Bly**	**Co-Chair**
2.	**Gail Robinson**	**Co-Chair**
3.	**Andy Blundell**	**Contributor**
4.	**David Antoniuk**	**Contributor**
5.	**Craig Dobson**	**Contributor**
6.	**Trevor Doerkson**	**Contributor**
7.	**Volker Mendritzki**	**Contributor**
8.	**Mike Hollinshead**	**Contributor**
9.	**James Van Leeuwen**	**Contributor**

The Report

Alberta Council of Technologies

1. **The Advocate – Leadership Is Needed**
2. **The Economist - Rural Broadband Is a Equalizer**
3. **Community Leaders – Resolving Local Issues**
4. **Service Applications – Enhanced Prosperity**
5. **Stakeholder Consultation - Communities without Boundaries**
6. **Counties and Municipal Districts Perspective - Poor Broadband Access**
7. **Alberta Ministries and Agencies – Broadband Champion Lacking**
8. **CRTC – Two Prime Regulatory Issues**
9. **Alberta SuperNet – The Technology and the Infrastructure**
10. **Structural Separation – An Economic Paradigm Shift?**
11. **Summary - Barriers to Rural Broadband**
12. **Recommendation – Integrate ABCtech and CWB as a Network of Networks**

Leadership is Needed

- **Rural leadership** - promoting the role of advanced telecommunication in sustaining rural communities; serving to rally local commitment and investment on the demand side of the 'broadband economy'; facilitating regional cooperation; fostering 'cultures of use.'

- **Government leadership** - fostering and supporting community leadership; stimulating development of *robust* (sustainable) broadband networks and services to serve rural communities; establishing government as an anchor tenant on these networks

Rural Leadership

- **Success with rural broadband will depend mostly on the effectiveness of community leadership**

- **The highest priority for these leaders must be to support incumbent community members in recognizing and realizing the value of broadband to their own legitimate interests**

- **The best candidates for leadership are residents who are recognized and respected throughout their communities, good communicators, with compelling stories about their own experiences with broadband**

- **The very first step for any community is to bring these candidates together, and encourage them to work together in developing and applying broadband solutions to local issues and opportunities**
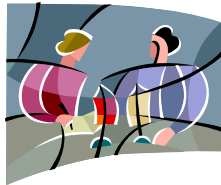
Service Applications

- **Rural broadband provides members of the community with the means to: access specific information, collect the best resources from anywhere in the world, and to collaborate with individuals and groups worldwide**

- **A community's imagination is the only limitation for the applications for rural broadband**

- **Pilot projects and research in the e-Learning, e-Health and e-Commerce areas will help to generate both urban and rural community interest**

E-Health

E-Learning

E-Commerce

Counties and Municipal Districts

- **The Alberta Association of Municipal Districts & Counties (AAMDC) is an association of elected rural councils representing the interests of rural Albertans**

- **AAMDC carriers forward the critical issues to both provincial and federal decision makers**

- **The AAMDC has created a rural task force. The task force asked municipalities to identify barriers to broadband access. These include:**

  1. **Lack of Information**
  2. **Uncertainty about the Benefits**
  3. **Interconnection Costs Too High**
  4. **Rural Topography requires Line-of-Sight**
  5. **Population Distribution**
  6. **Lack of Tower Infrastructure**

Ministries and Agencies

- **Provincial Ministries**

  1. **Service Alberta**
  2. **Alberta Agriculture and Rural Development**
  3. **Alberta Advanced Education and Technology**

- **Provincial Agencies**

  1. **Rural Alberta's Development Fund**

- **Federal Ministries**

  1. **Agriculture and Agri-Food Canada**

  "Government Leadership is Lacking"

Two Regulatory Issues

1. CRTC Deferral Fund

- **In 2002, the commission set out its price cap framework**
- **Price cap regulation placed a ceiling on prices a company can charge its customers**
- **TELUS has approximately $163M in its deferral fund**
- **Subject to CRTC approval TELUS may use part of this fund to provide rural broadband to high cost serving areas**

2. Local Loop Unbundling (LLU)

- **A decision was made in 2001 allowing unbundling of local loops in rural areas on an indefinite basis**
- **The Internet Centre has a filed a compliant with the CRTC stating that TELUS is not complying with the local loop unbundling regulations**

Alberta SuperNet

- **Focus has shifted to the first mile**
- **Wireless Internet Service Providers (WISPs)**
- **Traditional economic models**
- **Network Infrastructure + Services**
- **No viable business case to service high cost serving areas**

Some First Mile Projects

- **Parkland County**
  - **Rural Broadband Study**

- **Special Areas**
  - **Netago (Hanna)**

- **Beaver County**
  - **Equity (Riley)**

- **Grande Prairie**
  - **GPN (Grande Prairie)**

Structural Separation

- **The key is to 'structurally' separate the underlying network infrastructure from the services deployed so that the network can be funded as a long-term investment.**

- **The network is then operated on an open nondiscriminatory basis that enables full competition at the services level.**

- **Analogously, the power grid is provisioned on a utility (structurally separated) basis that enables full competition among the appliance providers**
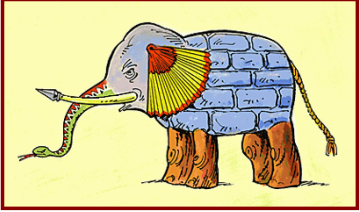
Topics

Alberta Council of Technologies

- ABCtech's Rural Broadband Role

- Rural Broadband Status Report

- **Barriers to Rural Broadband**

- Recommendation

The Blind Men and the Elephant

- **John Godfrey Saxe (1816-1887)**

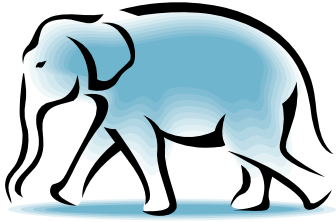- **Limited perceptions lead to misinterpretations.**

Google Search: Blind Elephant

Barriers to Rural Broadband

Alberta Council of Technologies

1. **Rural Demographics Undermine Business Economics**

2. **Community Involvement Lacking**

3. **Relevant Content Missing**

Topics

Alberta Council of Technologies

- **ABCtech's Rural Broadband Role**

- **Rural Broadband Status Report**

- **Barriers to Rural Broadband**

- **Recommendation**

Recommendation

Alberta Council of Technologies (ABCtech) should join forces with Communities without Boundaries (CWB), for the purpose of educating stakeholders about barriers to Rural Broadband and developing collaborative initiatives to overcome these barriers.

TO DO:

Questions/Discussion