

Using Communications Technology to Transform the Avalon Gateway

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Transforming the Avalon Gateway with Communications Technology

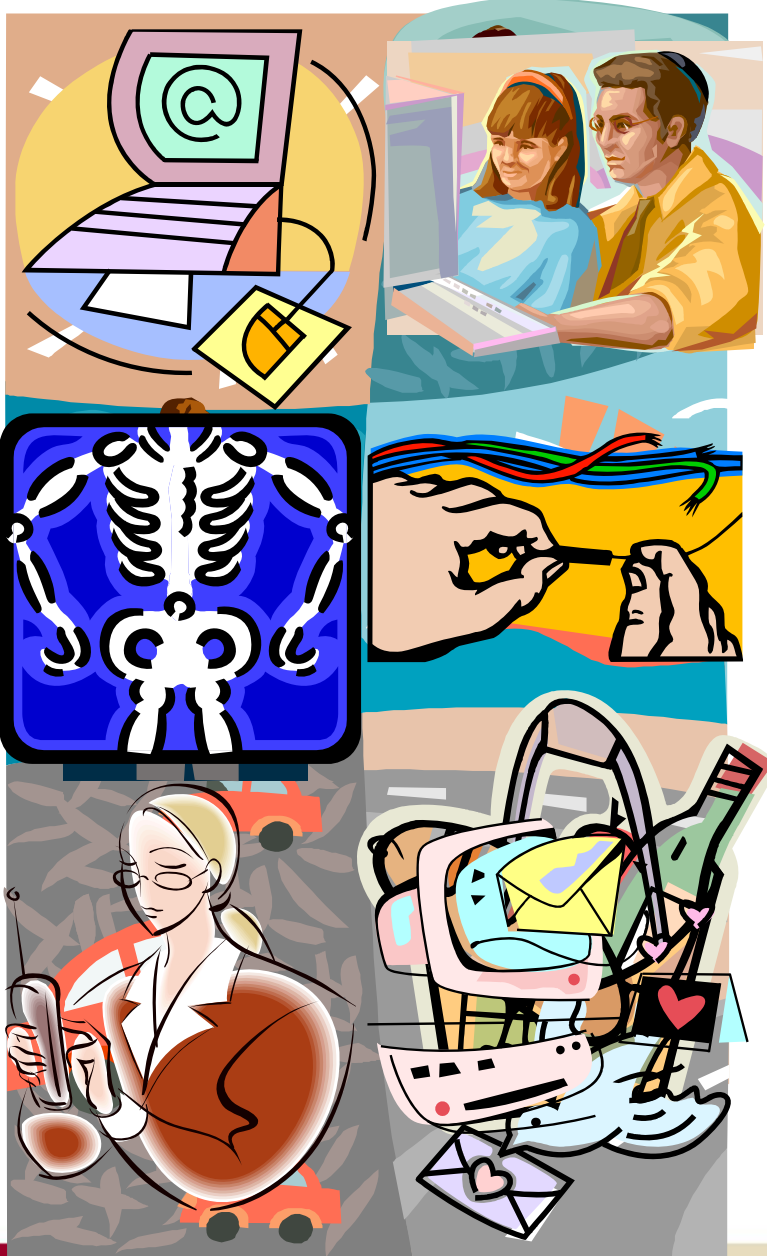
- How can the region use the latest communications technologies - such as the Internet, mobile phones, computers and satellite systems - to
 - support economic development
 - improve quality of life
 - improve education and healthcare
 - lead to more competitive businesses and industries
 - and bridge the divide between rural and urban economies?

SUSTAINING the Avalon Gateway with Communications Technology

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Sustaining the Avalon Gateway with Communications Technology

- What changes, such as access to broadband, are required to allow the region to tap into the potential of connectivity?
- And how to make a *case for connectivity*.



Memorial
University of Newfoundland

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THE LESLIE HARRIS CENTRE OF REGIONAL POLICY AND DEVELOPMENT

Connectivity is Transformative

Broadband infrastructure is one of the highest priorities for communities wishing to improve their economic development

Broadband will ultimately determine the health and viability of rural communities

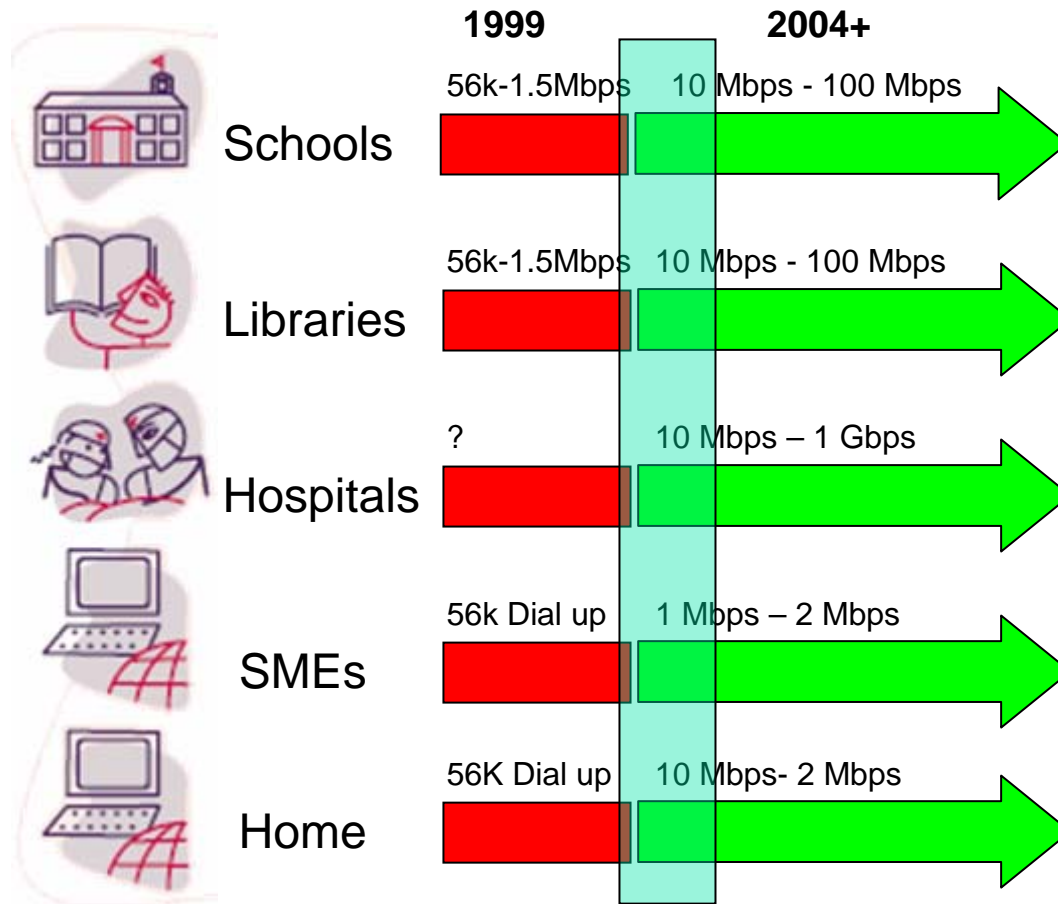
And, it goes beyond economics... broadband technology enables a richer quality of life

Government of NL addresses the connectivity issue

We have a serious infrastructure gap in this Province, and the gap is growing as our competitors invest in rapid, low-cost distribution systems and digital networks. If we do not keep pace, we will lose markets and fail to attract new investment ...

NL Government's broadband initiative launched in November 2005 to help create a province-wide advanced computer network

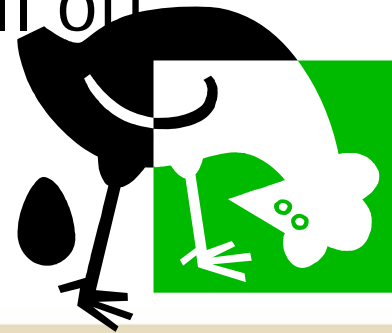
Need for Broadband in ...



Source: Estimates by Broadband taskforce

The digital divide is a challenge

- Rural Canadians are being left behind
 - 72% of Canadian communities (mostly rural) do not have access to broadband
 - This represents less than 25% of the population
 - And it's more extreme in NL
- Connectivity and associated services are skewed in favour of those who are economically well off, more educated, and urbanized
- It's a chicken and egg problem



So, what are rural areas missing?

- Better health care
 - Access to education, learning and training
 - Business opportunities
 - Access to government services
 - Social and Community Benefits
- ... and long-term viability

Improved health care

- Supporting healthcare professionals
 - As a strategy to recruit and retain rural physicians and other healthcare professionals
- Provides access to online health information to those in rural communities
- Provides improved healthcare
 - Access to diagnostic tools and diagnosticians & specialists
- Pharmacy connections

Health Requirements

Time Required to download an 144 MB image file	
56 Kbps	348 minutes (5.8 hrs)
128 Kbps (ISDN)	144 minutes (2.4 hrs)
1.54 Mbps (DSL)	18 minutes
10 Mbps	< 3 minutes
1 Gbps	< 2 seconds

- Approximate size:
 - CT Scan 157 MB
 - Ultrasound echocardiogram 150MB
 - MRI 45MB
 - Mammogram 167 MB

Education, learning and training

- Access to programs
- Access to information, which more and more requires broadband
- Flexibility of learning, removed from time as well as geography
- Access to library resources

Business

- E-Business is smart business
 - real estate (78 percent of buyers first see their purchase on the internet)
 - e-Bay
 - Access to markets
 - New businesses (e.g. aquaculture) require broadband
 - Access to suppliers
 - Bookings (e.g. b&b accommodations)

Tourism and culture

- Exposure to new, and targeted, markets
 - New Zealand cultural tourism

Tourism and culture

- m-commerce
 - Access via cell phones to directories, sales, etc.
- GIS and GPS
 - On car systems to aid in navigation and knowledge of area services
- Sales of cultural products
 - Magazines (e.g. Downhome), music, art
- Linking with potential customers worldwide

Government

- Access to government services
- Access to information
 - Community programs
 - Contracts
 - Jobs

Social and community benefits

- Those who work in information and communications account for 5% of employed people
- An additional 20% of people use technology intensively in their jobs
- Use of communications technology increases productivity
- People and firms are increasingly using the internet to find jobs or recruit
- More and more, training is provided via the internet

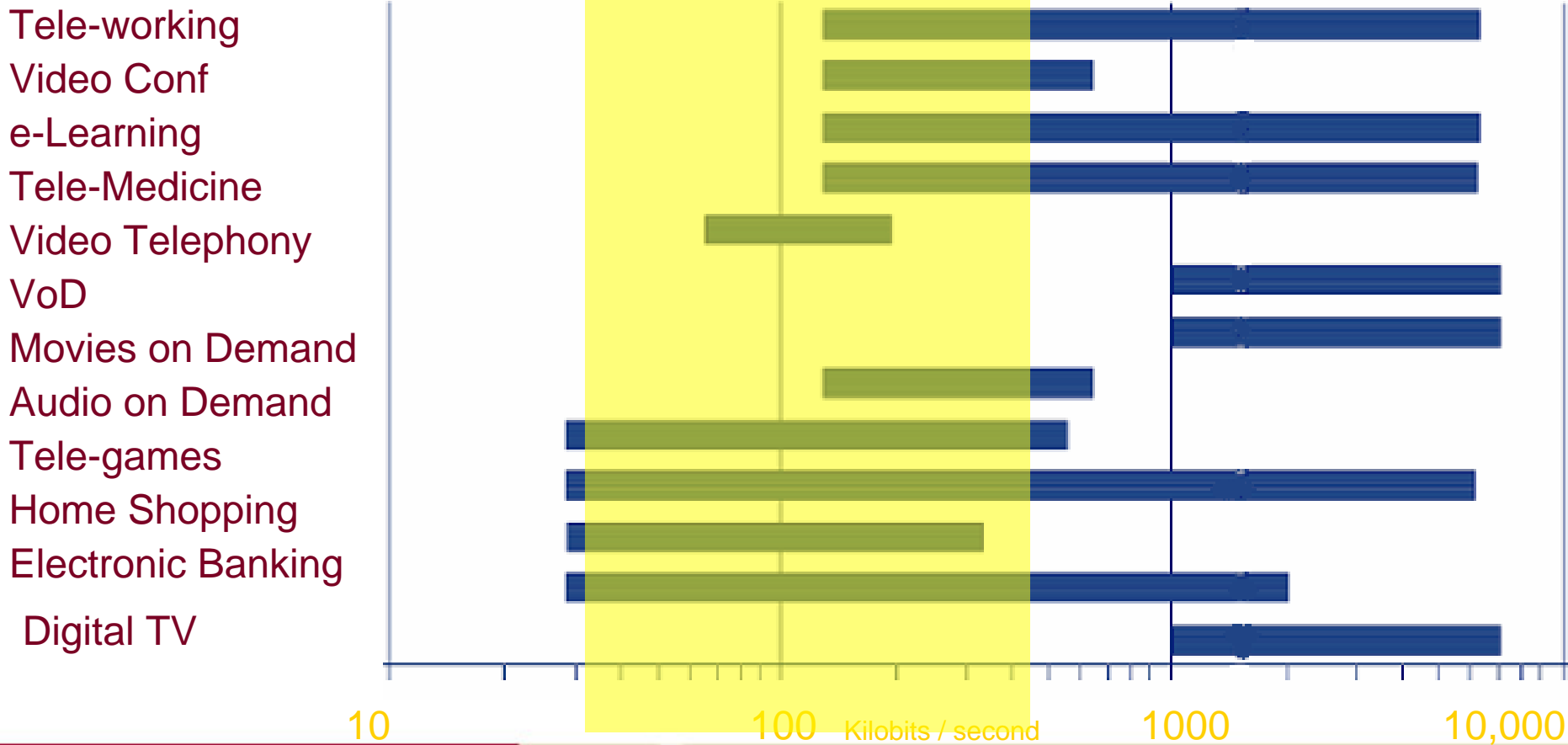
Other benefits

- News, entertainment, and shopping
- Peer to Peer Networks (P2P)
 - trading in audio files now being overtaken by trading in video and other files

Bandwidth Requirements (2001)

Rural NL 2005

Source: Plannedapproach.com



How to get there?

- Critical factor for success: build a sustainable case
 - Effective partnership between key stakeholders
 - Public sector (local, provincial and federal governments)
 - Private sector (organizations wanting to expand their markets)
 - Informal sector (advocacy groups, thinktanks)
 - Representation from the target audience

Gov't Broadband Vision Statement

“The future of communications infrastructure in Newfoundland and Labrador lies with broadband and its ability to bridge the urban-rural connectivity divide. This technology will help drive advances in the social, cultural and economic aspects of life in our province, and be an example to other jurisdictions for people helping people to succeed...”

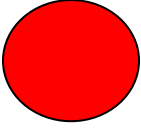
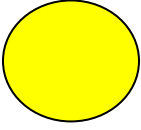
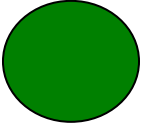
Government Initiative in Broadband

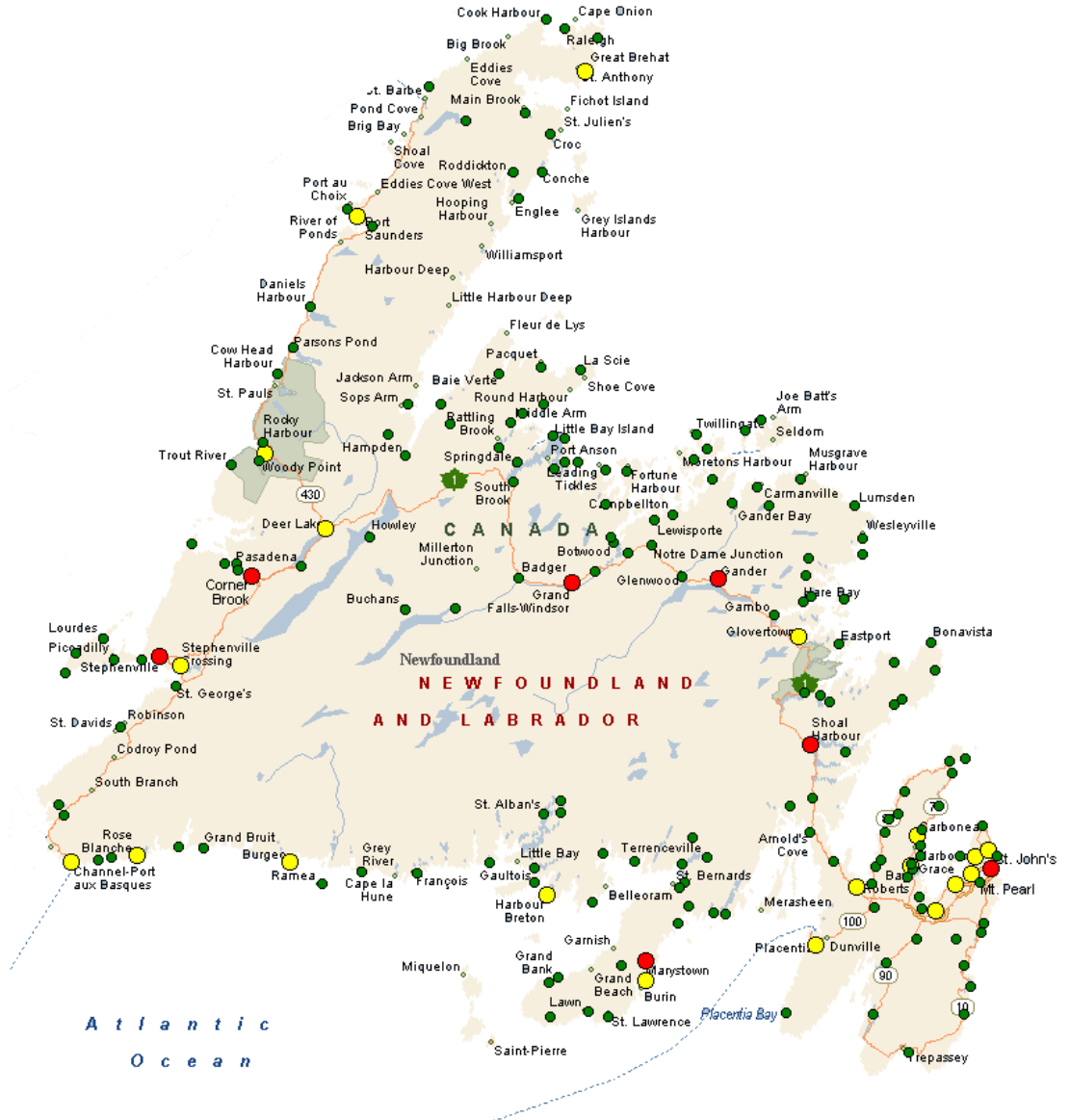
Office of the Chief Information Officer, Gov't of NL

GIB Concept

- Deliver broadband network model for government and other major public users of telecommunications that will meet 21st century infrastructure standards by:
 - Aggregating all telecommunication services for all provincial public agencies under one contract
 - Leveraging government purchasing power
- Provide advanced network to all NL communities with a *government presence*
- Create a competitive telecommunications service
- And, provide an effective co-operative governance structure

Government Broadband Initiative

-  Backbone
-  Distribution
-  Access



Make a loud noise, together:

- Effective partnership between key stakeholders
 - Public sector (local, provincial and federal governments)
 - Private sector (organizations wanting to expand their markets)
 - Informal sector (advocacy groups, thinktanks)
 - Consistent and persistent messages from the target audience (educators, business people, community groups, municipal governments ...)

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