



**Asia-Pacific
Economic Cooperation**

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Session 3

Canada's Telecommunications Overview

Purpose: Information
Submitted by: Canada



Regulatory Roundtable
Chinese Taipei
7 May 2010



Industry
Canada Industrie
Canada

APEC Tel 41 Regulatory Roundtable
Canada's Telecommunications
OVERVIEW

May 7, 2010

Canada

Issue

Telecom policy objectives:

- Increasing choice and reducing costs for business and consumers
- Fostering competition as a means to encourage greater investment and innovation
- Ensuring regulatory frameworks are correct and, where necessary, taking action to address market failures
- Promoting access to advanced services, for all Canadians in all regions of Canada
- Protecting consumers, including through better transparency for informed decisions

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Evolution of Canada's telecommunications sector

- Two competing network infrastructures - cable and telco - allow for facilities-based competition
 - Structure is more typical of North America, where expansion of cable service is more prevalent → more robust competing infrastructures in wireline
- Until early 1990s, telecom markets characterized by regional monopolies of incumbent carriers – changing legislation and regulation (e.g, *Telecommunications Act 1993*) have since facilitated competition
- Technology has further enabled competition
 - Cablecos' ability to provide voice and Internet services
 - However, in broadband, wireless is not yet considered a substitute, as price and speed not yet competitive
- Owing to natural tendency towards oligopoly, however, consolidation is still dominant industry structure

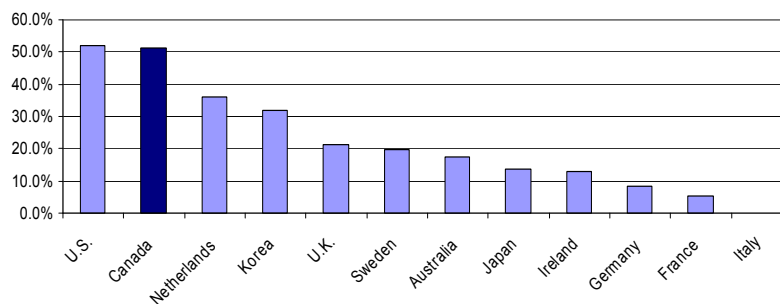
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International context

Canada is unlike most other OECD countries

- In most other OECD countries, two competing networks do not exist; the platform owned by the incumbent telco is predominant
- Shares of the broadband residential market are around 70-100%, compared to ~40% in Canada

Cable Share of Broadband Subscriptions, Selected Countries (June 2009)



Source: OECD Broadband Portal

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International Context (cont.)

- **Choice of policy approach is largely dependent on evolution of sector**
 - Many countries simply could not adopt facilities-based competition – do not have two robust competing network infrastructures
 - Direct operation or funding of fibre networks by municipalities is also more common, especially in northern Europe
- **Canada has competing networks → facilities-based competition**
 - Large publicly-funded infrastructure projects are problematic with competing networks
 - Publicly-owned networks less viable since must compete with not one but two established incumbents
- **For wireless, facilities-based competition is common in all countries**

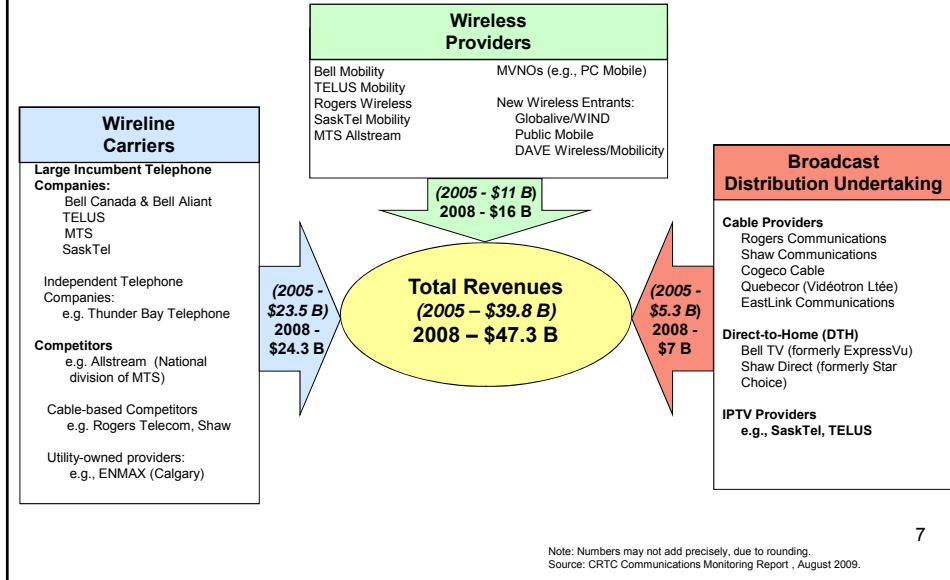
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Competition in telecom services in Canada

- In each regional market, consumers typically can choose from 2-3 facilities-based providers (incumbent telco + incumbent cableco + one additional wireless provider)
 - In most regions there is integration amongst providers, with the same provider offering a suite of services
- Wireline Voice: two facilities-based local telephone providers with various small resellers, VOIP providers, and other niche players
 - Wireless provides some choice but is vertically integrated
- Wireline broadband: two facilities based providers, various niche players relying on wholesale access
 - Wireless broadband has not been considered adequate substitute -- but potentially moving towards this
- Mobile Wireless: three large established providers, some mobile virtual network operators (MVNOs), regional new entrants as they launch

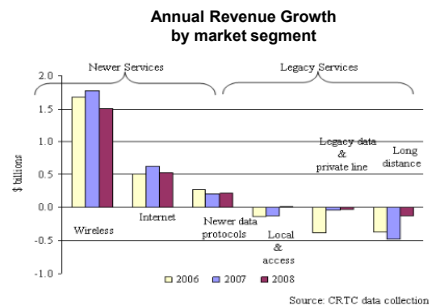
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Overview of Canadian telecom sector: Wireless is new growth area...

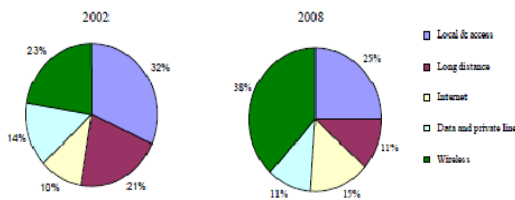


...outstripping legacy services

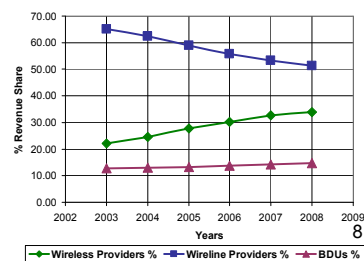
- Growth in wireless' revenues is outstripping legacy services and creating a new area of competitive pressure
- Traditional services are exhibiting negative revenue growth



Distribution of telecommunications revenues by market segment

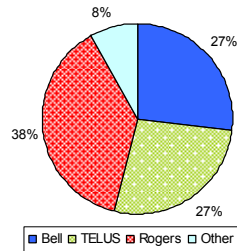


Telecommunications Revenues by Provider (%)



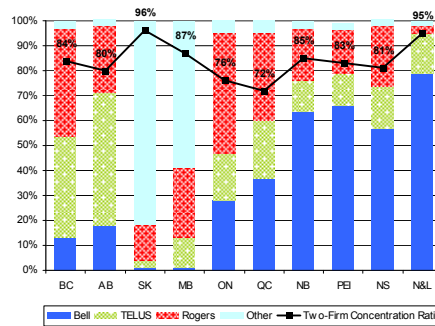
Wireless market is dominated by three players

National Wireless Subscriber Share (2008)



Source: CRTC Data Collection

Provincial Wireless Subscriber Market Share (2008)



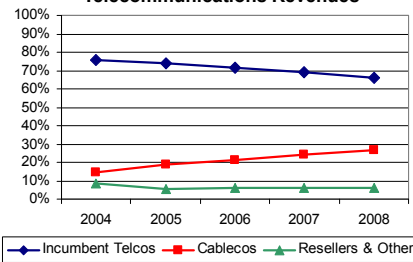
- Canada currently has two HSPA networks: Rogers and joint Bell/Telus

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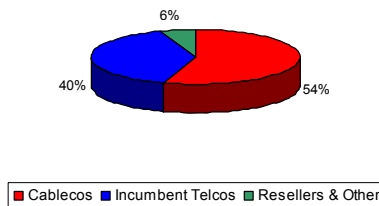
Wireline

- In wireline networks, cable companies have made significant gains vis a vis telcos
 - “Last mile” of cable access network is more robust than that of telcos
 - Cablecos have over half of wireline Internet access market share
 - Rogers is also the leading wireless provider in Canada
- Cablecos offering more attractive bundles of Internet, voice and video services to consumers

Share of Total Telecommunications Revenues



Share of Residential High Speed Internet Subscribers (2008)

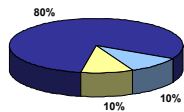


Source: CRTC Data Collection

Incumbent telcos still lead wireline business segments

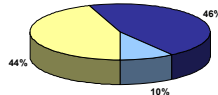
- Cable has a relatively small presence in the business market as cable facilities were originally built to provide residential television services
 - Have made some in-roads, particularly for business Internet where telcos not as dominant, but network coverage for businesses is still limited
- Telcos compete outside of the traditional operating territory and there are some utility-owned or formerly utility-owned competitors
 - Larger markets have 3-5 facilities-based competitors while smaller markets may be limited to the telco (cableco possible too, but focused only on small office/home office segment)

Business Voice Revenue Share
(local and long distance)



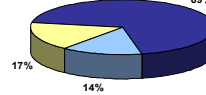
Total 2008 revenues: \$4.75 billion

Business Internet Access
Revenue Share



Total 2008 Revenues: \$997 million

Data & Private Line
Revenue Share



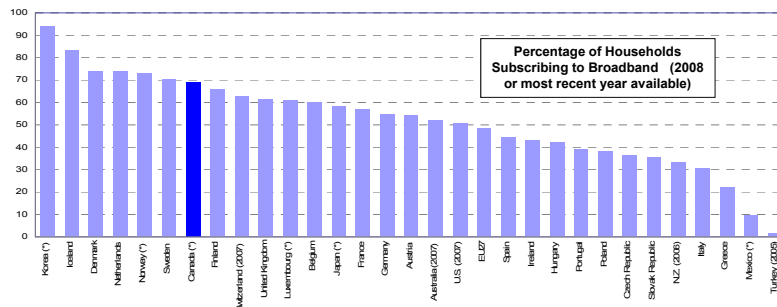
Total 2008 Revenues: \$4.33 billion

■ Incumbent telcos (in traditional operating territory)
■ Incumbent telcos competing out-of-territory
■ Alternative service providers (including cablecos)

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Canada's telecom performance: "Middle of the pack" for broadband

- Basic broadband penetration ranking has slipped from initial high, but seems to have stabilized (7th to 10th depending on study)
- Because of ease of "last mile" connection, many European countries have 95-99% DSL coverage whereas Canada's DSL coverage is approx. 84% (Canadian geography is challenging)
- Canada is in middle third for average speeds but few Canadians subscribe to top tier speeds and Canadian cities are not amongst the world's fastest
- Prices tend to be high, especially for higher speeds – Canada in third quintile for lower speed services, but ranking declines to fourth or fifth quintile as speeds increase



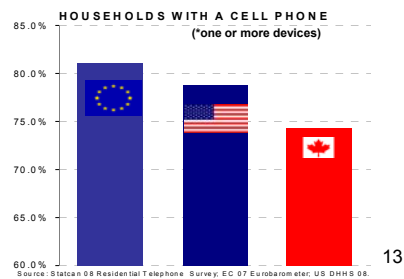
Source: OECD Broadband Portal and CRTC 2009 CMR

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Performance

Wireless is also in "mid-range"

- Availability of wireless networks in Canada is excellent: two national HSPA networks
- However, International comparison studies have indicated that Canada's wireless telephone prices are high
 - According to OECD, during 2006-2008, international average prices were decreasing (fell by 32% for high usage, and 21% for low usage) but Canada's prices increased by 5-10%, on average, during the same years
- But recent evidence indicates that Canada's wireless prices starting to decrease
 - According to CRTC, between 2008 and 2009, wireless prices in Canada fell moderately (between 0% and 10%, depending on the "use -basket" measured) -- and Canada's prices are in the middle of countries measured
 - The CRTC measure uses somewhat different data from the OECD (pricing voicemail, bundles and incoming minutes)
- Wireless penetration rate in Europe and U.S. is higher than in Canada and growth in penetration is also higher, even though Canada has comparatively more room for growth
 - Europe penetration rates of 130% (active SIM/person); U.S. = 92%, Canada = 68%
 - Growth 2009Q4: U.S. = 1.8%, Canada = 1.0%



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Performance

Telcos' capital investment has been solid

- Canadian carriers are investing significant sums - \$12 B in 2008 (including \$4 B for spectrum) in telecoms
- Capital investment compares favourably to other jurisdictions
- Capital intensity (capex as percentage of revenues)
 - Historically, for Canadian telecom capital expenditures per capita (capex) in the OECD, Canada ranks in middle third
 - On wireline, Canadian carriers tend to rank well compared to European peers
 - Canadian telcos tend to have capex intensity of 15-20% compared to 10-15% for European peers (e.g., France Telecom, Deutsche Telekom, Telecom Italia, TeliaSonera)
 - Wireless capital intensity trends are more ambiguous and variable, but capital intensity tends to be roughly comparable

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Performance

Consumers' views – overall satisfaction low; wireless lowest

- Private sector surveys indicate average satisfaction across all cell phone carriers in Canada is fairly low
 - Consumer Reports September 2009 - average satisfaction across all carriers was 62 out of 100 - cell-phones continue to be one of the lowest rated services
 - JD Power and Associates Fall 2009 - customer satisfaction with wireless service providers has remained stable between 2008 and 2009 - but recommendation and renewal intent have decreased
 - Better Business Bureau 2008 - cell phones equipment & service was number one industry complained about - other telecommunications industries also in the top ten (telephone communication, 4th and Internet services, 7th)
- Indications are that this is not unique to Canada – OECD work shows that satisfaction issues are similar across jurisdictions
- Commission for Complaints for Telecommunications Services (CCTS)
 - Of the 3,200 complaints that the CCTS has opened, the largest single issue (34%) is billing, such as disconnection fees and overcharging
 - Level of complaints received in Canada low vis a vis other countries – but this may be due to lack of knowledge about fairly new CCTS rather than better satisfaction with services

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What tools does the government have?

- **Tools:**
 - Either through regulation, such as universal service fund; or, subsidy, BRAND, Broadband program, or use of spectrum allocation (e.g. set-aside)
- **Minister of Industry - Telecom Policy & Radiocommunication Policy and Regulation**
 - *Telecommunications Act* focuses on economic regulation -- s. 27 of the *Act* prevents unjust discrimination and undue preference (e.g., to prevent unjust traffic management); provides powers to the Governor-in-Council – the Minister of Industry makes recommendations on:
 - **Issue binding directions to the CRTC on questions of general application on broad policy matters:** First policy direction for telecom issued in December 2006 to ↑ reliance on market forces
 - **Rescind, vary or refer back decisions made by the CRTC:** used more frequently in recent era of government deregulatory agenda
 - **Require CRTC to report on any matter covered under the Acts:** can use this power to influence CRTC to take action, such as in creation of CCTS
 - Power under *Radiocommunication Act* to allocate and regulate spectrum – the critical resource required for the wireless industry
- **Minister of Canadian Heritage - Broadcasting Policy**
 - Objectives more focussed on social goals – promotion of Canadian content, protecting culture
- **CRTC - Telecom and Broadcasting Regulation**
 - For telecom, CRTC focus has shifted from economic regulation of monopoly service providers to reliance on market forces and lighter touch regulation

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How has regulation of telecom evolved?

- Monopoly era (pre 1992) command and control regulation centered on determining telephone companies' profitability and setting telephone service rates based on detailed accounting examinations
- Competitive transition from 1992 to 2004 sequentially opened up all market segments (long distance, local telephony, etc.) and set the regulatory conditions to enable new entrants to operate, including reforming subsidy regime for local telephone service; many measures were aimed at promoting competitive entry
- Reliance on market forces (post 2005) The Government's current agenda - Policy Direction to rely on market forces to the maximum extent feasible and variance of CRTC decision to streamline and expedite forbearance for local telephone services - is the driver of current light-handed regulatory approach

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Recent directions in policy thinking – greater competition

- Telecommunications Policy Review Panel (TPRP) Report, March 2006 – 127 recommendations:
 - To rely on market forces (made possible by ↑ in competition)
 - Regulation only as a last resort where significant market power still exists
 - Maintaining appropriate consumer protection
 - Foreign direct investment liberalization and review of broadcasting recommended in Afterword
- Competition Policy Review Panel, June 2008 – recommendations consistent with TPRP
- Government telecom policy objectives – actions targeted at objectives

Objectives:

- Fostering competition, to encourage greater investment, innovation and consumer choice
- Ensuring regulatory frameworks are correct and addressing market failures
- Protecting consumers, including through better transparency for informed decisions
- Promoting access to advanced services for all Canadians



Actions:

- VOIP (Nov 2006) and Local Forbearance (April 2007) decisions
- Policy Direction to CRTC (Dec 2006)
- Creation of CCTS (April 2007)
- Spectrum Policy Framework (June 2007)
- AWS spectrum auction (May 2008) (& Globalive variance (Dec 2009))
- Broadband Canada Program (in *Canada's Economic Action Plan*, Mar 2009)
- Referral back to CRTC of consumer wholesale broadband decision (Dec 2009)
- Satellite foreign investment restrictions (Budget 2010)

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THANK YOU