

# Broadband Access: Its prospects in Jamaica

Paper for 3<sup>rd</sup> Annual OOCUR Conference, Nassau, Bahamas, November  
2-4, 2005



by  
**Carey Anderson**  
**Economist**  
**Office of Utilities Regulation**  
**Jamaica**  
**West Indies**

# Objectives...

---

- ❑ Theoretical background
- ❑ Legal and regulatory framework in Jamaica
- ❑ Markets and Market conditions
- ❑ Demand Size Considerations
- ❑ Supply Side Considerations
- ❑ Imminent regulatory challenges of broadband access
- ❑ Closing remarks

# Introduction...

---

## Broadband defined...

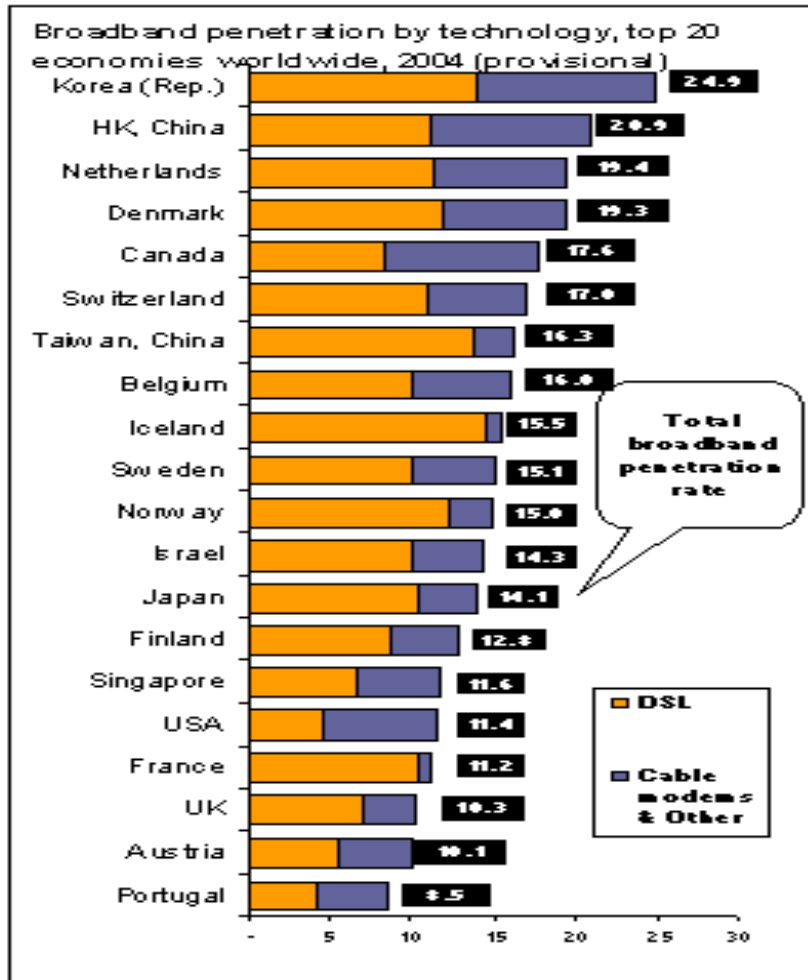
- 1.) ...a permanent high-speed network connection with minimum data speeds of 128 kilobits per second (Kbps).
- ❑ Transmission technologies: wired (cable, DSL, fibre) and wireless (3G, Satellite, WLAN, WiMax and Wifi)
  - ❑ Applications of broadband:  
Agriculture, Distance Learning, National Security, Tourism, Entertainment Activities, E-government, Medicine, Public Safety, Telemedicine, Tele-working, among others
  - ❑ Internet Protocol (IP) enable services:  
VoIP, Video on Demand, Video Conferencing, Interactive Games, among others
  - ❑ Broadband helps to accelerate economic growth and enhance economic development

# Global Broadband

---

- ❑ Broadband subscribers numbered over 100 million (2004 Global Broadband Market Research).
- ❑ Other report shows that Latin and South America is the fastest growing region in terms of broadband uptake.

# Penetration rates (# of subscribers per 1000 inhabitants) (ITU 2004)



Jamaica's penetration rate that time was

# The Digital Divide...

---

- ❑ "...the discrepancy between people who have access to and the resources to use new information and communication tools, such as the **internet**, and people who do not have the resources and access to the technology".
- ❑ Discrepancy between those with skills, knowledge, and abilities to use the technologies and those who do not.
- ❑ Urban and rural areas, rich and poor areas

Source: [www.Webopedia.com](http://www.Webopedia.com)

# The Digital Divide *cont'd*

---

- Factors: economic and non-economic
- Income levels, infrastructure, type of government, knowledge level, geography, demography, quality of regulation, culture  
...very important, affordable prices

# Legal and Regulatory Framework in Jamaica

---

- ❑ The Office of Utilities Regulation (OUR)
- ❑ Broadcasting Commission (BC)
- ❑ Spectrum Management Authority (SMA)
- ❑ Fair Trading Commission (FTC)
- ❑ Telecommunications Act 2000 and Office of Utilities Regulation Act
- ❑ Access to Information Act



# Markets Background

---

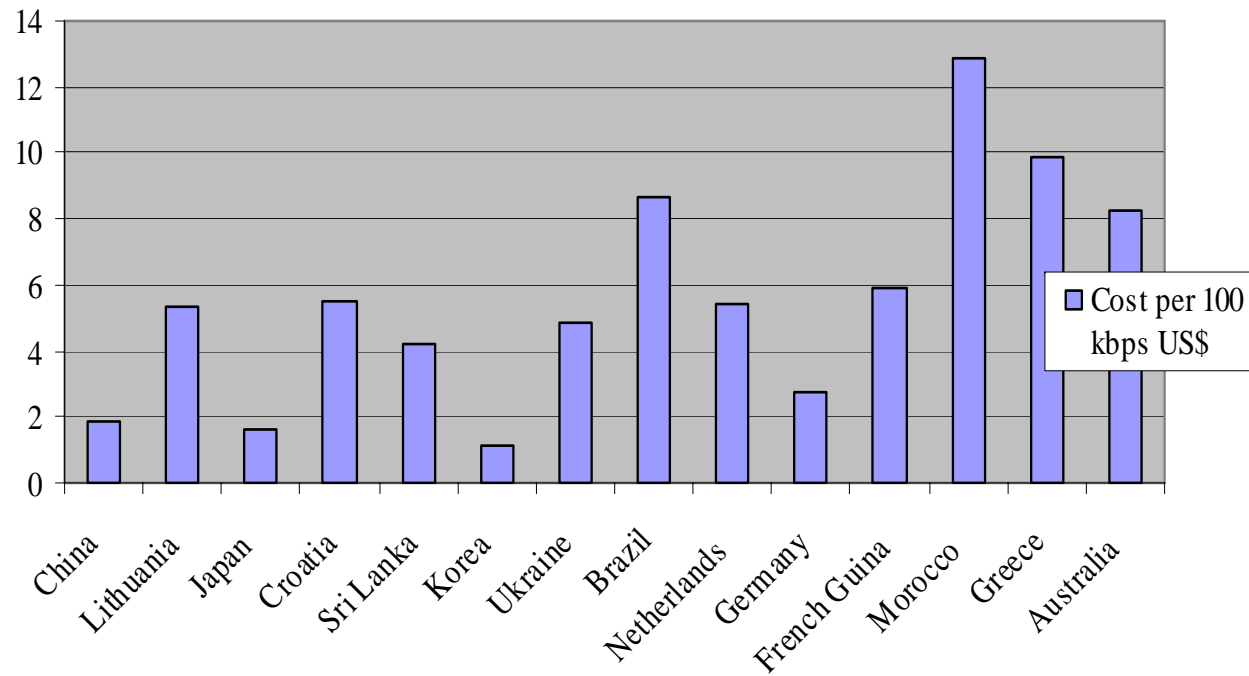
- Fully liberalized telecoms market since March of 2003
  1. Mobile telephony
  2. Fixed line telephony
  3. Data services and leased lines (resale of bandwidth)
  4. Internet Access (broadband access) market
  5. International gateway- Intl Fiber Optics Connection (2 new licenses for submarine Fibre Optic Cables construction): Fibralink Jamaica Limited and Trans-Caribbean Cable Company Ltd
  
- Internet Service Provider (ISP) market (dial-up and broadband)
  
- C&WJ, cable operators, Other ISP's

# Local ISP Market and Competition

---

- Very weak competition
- Notable absence of facility based competition
- High cost of bandwidth due to ownership and limited capacity of Int'l Fiber Optic Cable (less than 1 Gbps connection speed)
- Mark absence of infrastructure in two critical markets
- High Prices...less than 10% of potential market served

# Price Comparisons



- ITU (July, 2004)
- ┆ For Jamaica in July of 2004  
100 kbps for US\$35 (C&WJ)

## Price Comparisons Cont'd

---

- US\$49.95 for 512 kbps and US\$29.95 for 128 kbps (C&WJ)
- 1 Mbps for approximately US\$32.29 (British Telecoms)
- 768 kbps for US\$14.95 (Verizon Wireless)
- 2 Mbps for US\$36.95 (Cable Bahamas Ltd)
  
- What is the future for local prices?

# Demand Considerations

---

- ❑ Reduction in bottleneck, bandwidth cost
- ❑ Bandwidth (1Gbps to 20 Gbps) – Year 2006
- ❑ Increased facility based competition
- ❑ 'Last mile' access through local loop unbundling
- ❑ GOJ's sponsored programs to promote and increase computer ownership and access, internet use and access, and creating workforce ready to expedite the benefits of broadband and other technologies
- ❑ Culture and social norms (games, ring tones, music and video downloads, news/sports, messaging, emails, etc)
- ❑ 1 million users (ITU, 2004)
- ❑ Income

# Supply Side

---

- ❑ Reduction in bandwidth cost...new operators (ISP's)
- ❑ Cable operations providing internet access
- ❑ All Island cable license – Merit Communications
- ❑ Mobile providers -3G- Oceanic Digital Jamaica Limited - CDMA mobile network
- ❑ Local Loop Unbundling

# End Results

---

- ❑ Wide scale delivery of broadband
- ❑ Reduction in prices
- ❑ Increase market penetration

# Regulatory Challenges

---

- ❑ Continued need to promote and foster competition
- ❑ Competitive safeguard documents
- ❑ Making necessary changes to regulatory framework to speak to convergence of technologies and services
- ❑ Telecommunications Act 2000
- ❑ One Regulatory agency or comprehensive legislation
- ❑ Merging of OUR, SMA or BC



# Regulatory Challenges cont'd

---

- ❑ Taking a serious look at VoIP
- ❑ Content Regulation
- ❑ Quality of service regulation
- ❑ Spectrum regulation

## Summary...

---

- ❑ Notable absence of competitions in critical market segments
- ❑ High prices..low market penetration
- ❑ Important developments will drive broadband deployment and uptake
- ❑ Regulatory framework is inadequate and needs marked amendments