

# Regulatory Issues Affecting the Internet

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# Outline

- Existing Service-Based Regulation
  - Telephone
  - Cable
  - Wireless
- Existing Provider-Based Regulation
  - BOC restrictions
- Emerging Regulatory Issues
  - IP Telephony
  - Video Streaming
- Broadband Regulation and the “Last Mile”

# Introduction

- Tradition of non-regulation of the Internet
  - Allow for rapid deployment
  - Unfettered innovation
  - Not an essential service
  - Difficult to regulate
- But still significant regulation of players in the Internet

# Introduction

- Internet Regulators
  - Legislatures
  - Judiciary
  - Federal Communications Commission
  - Federal Trade Commission
  - Department of Justice
  - State Attorneys General
  - State public utility commissions
  - Local and municipal authorities

# Existing Service-Based Regulation

- Federal Regulatory Structure
  - FCC jurisdiction
  - Communications Act of 1934
    - Broadcast (one to many, over the air)
    - Telephone (one to one, over wire)
    - Cable (one to many, over wire)
      - Added to Communications Act in 1984
    - DBS (like cable, but over air)
      - Carriage requirements added in 1992
  - Increasingly uncomfortable regulatory fit as new technologies are developed

# Existing Service-Based Regulation

- Telephone (Telecommunications) Services
  - Telephone services intensively regulated
    - “Common carrier” regulation of rates and terms of service
    - 1982 Separation of Long Distance from Local Services (AT&T Consent Decree)
      - BOCs barred from most other lines of business
    - 1996 Telecommunications Act
      - Incumbents required to “unbundle” and offer wholesale services
      - Incumbents required to offer interconnection
  - Information or data services not regulated
    - FCC “Computer I” decision (1971)

# Existing Service-Based Regulation

- Telephone (Telecommunications) Services
  - 1996 Telecommunications Act codified prior structure:
    - Basic Services are “the transmission of information of the user’s choosing without change in the form or content.”
      - Subject to common carrier regulation
    - Enhanced Services are information services that involve “transforming, processing, retrieving, utilizing or making available information via telecommunications.”
      - Not subject to common carrier regulation
  - ISPs today generally provide “enhanced services”

# Existing Service-Based Regulation

- Cable Services
  - 1984 Cable Act limited regulation to “one way transmission to subscribers of (i) video programming, or (ii) other programming service.”
  - Congress did not extend regulation to non-programming information
  - 1996 Telecom Act did not significantly alter the definition of “cable services”
  - Unclear precisely where Internet services fall under the 1984 Cable Act and 1996 Telecom Act



# Existing Service-Based Regulation

- Cable Services

- FCC Office of Plans and Policy 1998 Whitepaper

- Internet services may constitute “cable services” when cable operator “supplies significant amounts of its own content and local programming and information along with open-ended Internet connectivity.”
    - Internet services probably not “cable services” when offering is “nothing more than basic conduit access to the Internet.”

# Existing Service-Based Regulation

- Cable Services

- Ninth Circuit held that Internet services over cable did not constitute “cable service”
  - City of Portland v. AT&T (9th Cir. 2000)
  - Held that AT&T’s @Home service was a combination of information service and telecommunication service
  - Concluded that cable broadband service was a “common carrier” service subject to FCC regulation
- Other courts have disagreed
  - Gulf Power v. FCC (11th Cir. 2000) (pole attachments)
  - MediaOne v. County of Henrico (E.D. Va. 2000)

# Existing Service-Based Regulation

- Cable Services
  - Last Sept., FCC initiated NOI regarding Cable Open Access
    - Address the classification of cable modem service and the cable modem platform
    - Determine whether open access is a desirable policy goal
    - How to implement open access
  - FCC has “forbearance” authority if:
    - enforcement not necessary to ensure just and reasonable terms
    - enforcement not necessary to protect consumers
    - forbearance is consistent with the public interest

# Existing Service-Based Regulation

- Wireless Services
  - FCC jurisdiction over radio “spectrum” has historically been extensive
    - Licensing jurisdiction
  - Wireless Internet services are being afforded “light” regulation
  - FCC permitting voice, data and video services without common carrier or broadcast regulation:
    - Multichannel Multipoint Distribution Service (MMDS)
    - Local Multipoint Distribution Service (LMDS)
    - Satellite

# Existing Provider-Based Regulation

- Incumbent Local Exchange Carriers (ILECs)
  - BOCs and GTE (now Verizon)
  - Regulatory restrictions have prevented BOCs from fully participating in Internet marketplace
  - Restrictions conflict with concept of “non-regulation” of Internet
    - Regulatory restrictions on major players
    - Different regulations than on monopoly cable providers

# Existing Provider-Based Regulation

- InterLATA restriction
  - BOCs cannot provide long distance services that originate in their region
    - Restricted from Internet backbone market (on remand)
    - Restricted from bundling services
      - AT&T v. Ameritech (FCC 1998) held that ILEC violated Telecom Act by marketing package that included long-distance service from Qwest
  - Compare with monopoly cable competitor like Cox
  - BOCs required to obtain Section 271 Authority from FCC to offer in-region long distance

# Existing Provider-Based Regulation

- Content restriction
  - BOCs may provide information services only by satisfying conditions with FCC
    - Comparably Efficient Interconnection (CEI) plans
    - Open Network Architecture (ONA) plans
  - FCC will likely continue to regulate BOC provision of information services

# Existing Provider-Based Regulation

- State Regulation
  - Qwest Section 271 proceeding
    - In the US West-Qwest merger proceeding, Qwest argued that Section 271 provided most pressure on it to improve service quality
  - General Constitutional authority over “public service corporations”
    - “All corporations other than municipal engaged in ... transmitting messages or furnishing public telegraph or telephone service, and all corporations other than municipal, operating as common carriers...” Ariz. Const. art. XV, § 2.
    - Certification requirements and regulatory jurisdiction



# Emerging Regulatory Issues

- IP Telephony
  - Instead of analog transmission, voice signals are converted to data and transmitted over packet-switched Internet networks
  - Various flavors of IP Telephony
    - Computer-to-computer
      - Software-based; dual connected computers
    - Phone-to-phone
      - Uses voice switch at gateways
      - Uses normal telephone numbers
      - Invisible to user
    - Voice over cable networks

# Emerging Regulatory Issues

- IP Telephony
  - Computer-to-Computer IP Telephony
    - Information service
    - Not regulated
  - Phone-to-Phone IP Telephony
    - Functional approach
    - Users receive only voice, not information, services
    - Probably regulated as telecommunications service
  - Voice over cable networks
    - Not a cable service, because probably doesn't fit the definition
    - Probably considered a telecommunications service

# Emerging Regulatory Issues

- Video Streaming
  - Use of broadband facilities (DSL, Cable, etc.) to send video to customers
  - ISPs providing such services over telecom facilities are probably not regulated, because it is probably an “information service”
  - Telephone companies providing video services, however, face common carrier regulation
    - Exclusion for Open Video Systems
    - Exclusion for Video on Demand

# Emerging Regulatory Issues

- Video Streaming
  - Cable providers offering streaming video may be subject to regulation as a Cable Service
    - Local franchise requirements
    - Might be considered information service, then not subject to cable services requirements
  - Why distinguish for regulatory purposes between cable streaming video and telecom streaming video?
- Conclusion: Difficult to draw clean lines under current regulations

# Broadband and the “Last Mile”

- The “last mile” to the customer
  - least competitive
  - most constrained
- FCC concluded that broadband may solve the last mile problem
  - “opens the possibility of new facilities to service the last mile...” (Advanced Services Report, February 1999)

# Broadband and the “Last Mile”

- Advanced Service Report concluded no monopoly issues with broadband, because of intermodal competition:
  - DSL
  - Cable
  - Fiberoptic
  - Satellite
  - Wireless radio
- This conclusion may ignore current reality:
  - Only two current technologies with significant market share: cable and DSL
  - Potentially significant switching costs between these technologies
  - Technological limitations on cable and DSL

# Broadband and the “Last Mile”

- Cable Open Access
  - FCC generally does not impose cable open access on monopoly cable companies
    - Did not require open access on AT&T/TCI merger in 1998
    - Did require some open access provisions as a condition to Time-Warner/AOL merger because of significance of the merger
  - FCC initiated Cable Open Access NOI last year
- Prospects for FCC action on cable open access
  - New Chairman Michael Powell dissented from the Time Warner/AOL merger conditions
  - Powell is very free market-oriented, but has been non-committal on where the FCC should go on cable open access

# Broadband and the “Last Mile”

- FCC Line Sharing Order
  - Refers to the ability of two different service providers to offer two services over the same line at the same time
    - Voice - low frequency
    - Data/DSL - high frequency
  - 1999 Line Sharing Order required incumbent phone companies to unbundle the high frequency portion of the local loop
    - FCC concern that competitors would not be able to offer competitive DSL at a competitive price
    - Concern over delay in deployment of advanced services
    - Eliminates requirement for a second telephone line for data services
  - FCC reaffirmed these principles in January 2001 in a Reconsideration Order and FNPRM



# Broadband and the “Last Mile”

- SBC’s Project Pronto

- Project to aggressively make broadband service available to SBC’s local customers using fiber-optic—rather than copper—subloops
  - Plan to install 25,000 “neighborhood” terminals
  - Will allow access at 20 million homes that were “out of distance”
  - But SBC will remove copper loops from central offices
- Problem for the CLEC is where to install their DSL equipment
  - Telecom Act allows collocation in a central office of an incumbent
  - But now can’t get out with DSL due to fiber!
  - Cost too high and space too limited at neighborhood terminals
  - Restricts CLECs to resellers of SBC’s service
- Reconsideration being watched closely by other BOCs

# Recommended Resources

- [www.cybertelecom.org](http://www.cybertelecom.org)
- [www.fcc.gov](http://www.fcc.gov)
  - Word Search tools
  - EDOCs
  - ECFS
  - Working Papers series
- [www.thestandard.com](http://www.thestandard.com) (The Industry Standard)