Telecommunications Regulation

ITS 214
Discussion of Telecommunications Regulation: An Introduction,
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AT&T 1930-1981

• Market Share
  • 90% of local access
  • 90% share of long distance revenue
  • Over 90% of US households have a phone

• The company
  • Does research at Bell Labs
  • Equipment comes from Western Electric
1974 United States vs. AT&T

- Complaints
  - Exclusive equipment deal with Western Electric
  - Long Distance monopoly
  - Refusal to interconnect
  - Discriminatory practices
  - Abuse of the regulatory process
  - Predatory pricing
Outcome

- Local monopoly providers (RBOCs)
- AT&T market share down to below 50%
- Long Distance competition
  - Several facilities-based competitors
  - Many Resellers
- Long distance price reductions (62% reduction in AT&T revenue)
Why RBOC Restrictions

- RBOCs are not allowed “in-region” Long Distance
  - Prevent
    - Vertical Price Squeeze
    - Price Discrimination
    - Non-price discrimination
Side-Bar: Equal Access

• Single local provider, multiple long-distance providers
  • Local provider can favor one of the long-distance providers

• Equal Access
  • Requires same technical access for all IXCs
  • Customers must be able to choose their preferred provider
The 1996 Telecom Act

• Goals
  • Introduce competition into all markets
  • Improve customer access to new technology
  • Protect against monopolistic behavior and abuse
  • Maintain Universal Service
Implementation

• Competition won’t “just happen”
  • Structural Issues
    • Mandate interconnection and non-discrimination
  • Behavioral Issues
    • Unbundling
    • Cost-based pricing

• Safeguards
  • RBOC can’t enter Long Distance until there is local competition
Wholesale

• Retail
  • ILEC sells directly to its customers

• Wholesale
  • ILEC sells to CLEC at reduced price
  • CLEC sells to its customers

• Requires regulatory action?
Unbundling

• Bundles
  • Traditional ILEC service contains a number of “Elements”

• UNE
  • Unbundled Network Elements
  • Makes no sense to the customer
  • Useful to the CLEC
Outcome

• Local Competition
  • CLEC service - about 14% of all lines
    • 3.4% on CLEC-owned lines
  • Large/Medium Businesses are 42% of CLEC business
  • Of the CLEC sales over leased services
    • 55% UNE, 19% service resale

• Long Distance
  • Safeguards are weak
  • RBOC LD entry widely permitted
Universal Service

• Before 1984
  • Local service is subsidized by artificially increased long distance reads

• Before 1996
  • Local service was subsidized by access charges
1996 Act Aims

• High quality at low rates
• Access to advanced services
• Access in rural and high cost areas
• Supported by “equitable and nondiscriminatory contributions”
  • By “all providers of telecommunications services”
• Specific and predictable mechanism to raise funds
• Access to advanced services for schools, health care and libraries
Principles

• Make all subsidies explicit
• Universal service should be funded broadly
• Subsidies should be targeted narrowly
• Universal service should be competitively neutral
• Universal service should not distort competition
• Subsidized customers should be served efficiently
Telecom in 2000-2003

• The Internet Boom/Bust
  • Inflated expectation for profitable Internet business growth
  • High volumes of venture capital

• Backbone capacity was overbuilt
  • Unused capacity is reused for long-distance traffic
  • Overcapacity means pressure on prices
The Internet

• Not included in the 1996 Act

• FCC so far
  • Has not introduced Internet Regulation
  • Except for “Network Neutrality” debate
  • Does not consider VoIP a telecommunications service
    • No Access Fee charged

• VoIP Technology makes land-line replacement possible
Where we are now

• 1996 Act partially failed
  • RBOCs did not enter long distance as quickly as predicted
  • Large-scale mergers reduced competition
  • Court challenges removed some functions of the Act
    • UNE discounts are disappearing
• Wireless and VoIP may save the original intent after all
Outlook

• Wireless (2.5G, 3G) has become a viable alternative

• Internet (VoIP)
  • Growing quickly
  • Regulatory Challenge
    • Regulate VoIP?
    • Abandon the current Universal Service definition?