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 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 rates
- 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
  - Oversupply 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?