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The Center's Mission



To improve people's lives by advancing the application of science and technology to solve public problems.





Telephone Regulation

- Federal (interstate) and state (intrastate)
- Regulated monopoly until 1980s
- Price, QoS and availability regulation
 - Alternative regulation
 - Universal service, duty to serve
 - Common carrier
- Sales tax and assessments for universal service and public safety





Regulation Varies by Acronym



- Incumbent local exchange company ILEC
- Regional Bell Operating Company RBOC
– Qwest is an ILEC
- Large providers (50,000 access lines)
- Small providers, mostly rural, have less regulation
- Small private, cooperative and municipally owned





Universal Service

- Voice service available to everyone
- Common good arguments related to safety and economic development
- Federal universal service fund
- Explicit subsidies for low income and disabled customers
- Implicit (hidden) subsidies






Telephone Cross Subsidies



- Long Distance to Local – Access Charges
- Metropolitan to Rural – Uniform price (Large carriers like Qwest)
- Business to Residential
- Universal Service Fund
 - High cost companies
 - Schools, libraries, and hospitals





Payments to Government

- Sales and corporate income tax
- Property taxes
- Universal service fund contributions
- Minnesota cents/line charges
 - Lifeline services TAP \$.07 and TAM \$.06
 - Public safety \$.65



Wireless

- Cellular telephone
 - Primarily federal regulation
 - States have minimal business regulations; cannot regulate price
 - Cities and counties have limited say on tower location
- Less regulated wireless, e.g. WiFi
- 911 charge applicable





Cable Television

- Federal, state and local regulation
- Minnesota uses a city-based model with some cities forming multi-city commissions
- Some states have adopted state level franchise models
- No price regulation
- No universal service or common carrier requirements; area served requirement





Cable-City Relationships

- Cities issue franchises
- Franchise fee payments of up to 5% of gross revenue
- QOS regulation by city or commission
- Institutional networks
- PEG and area served regulation
- No legal monopoly; arguable monopolies in fact





State Franchise Option

- Other states have adopted state level franchises
- Pushed by telcos
- Address franchise fee, PEG, and area served in various ways
- Proposed in Minnesota
- Study due this January



Satellite TV and Internet

- Federal regulation
- Competes in part with cable
- Advantage in rural areas
- Sales tax





Internet

- Federal regulation
- Information service
- No common carrier obligation
- Sales tax
- Certain schools, libraries and rural hospitals benefit from federal subsidy
- Service rules/Net neutrality





1996 Act

- Telecommunications service
- Cable service
- Information service, including electronic publishing
- Legacy definitions – 1980s or before
- ISPs are information services
- Providers now providing all three





Non-discrimination

- Heritage of common carrier approach
- Applicable only to telcos with respect to their traditional services, e.g. access to CLECs and competing ISPs
- Cable cos. and cellular cos. can exclude other providers





Government as Purchaser

- Telecommunications Access Grants example
- City ownership and operation permitted with a supermajority (65%) vote





Odd Ducks

- Open video system
 - 1996 Act
- Telecommunications purchasing cooperative





Net Neutrality

- Congress and FCC have not set rules on Internet service
- Discrimination against customers not permitted (Comcast-BitTorrent case)
- Quality of service and pricing
- Volume caps or pricing





Universal service

- Is broadband now a public good so that it should be treated the way telephone was?
- Where would the subsidies come from?
- Overall subsidies vs. user specific subsidies





Convergence

- Triple play providers regulated at multiple levels
- For some things, FCC may be too distant
 - Individual consumer complaints – city or state
 - National uniformity has advantages
- States and cities may have lesser regulatory role as technology continues to change

