Center for Science, Technology & Public Policy
Humphrey Institute of Public Affairs

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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

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Minnesota is Diverse
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