

# U.S. Telecom in 2018: Three Utopias

Presented to NARUC Staff Subcommittee on Telecommunications,  
Sunday, July 20, 2008

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# Utopias Generally

- Let's pretend it's 2018.
- Let's invent a plausible history for last 10 years.
- Three Scenarios offered here:
  1. Preemption dystopia
  2. Technological utopia
  3. Legal utopia
- Each scenarios illustrates some aspect of current trends
  - Each solves some problems and creates some problems.

# #1 - Preemption Dystopia

- Theme - Preemption increases, and the effects are reinforced by industry.
- Background principle - Mixed use
  - Traffic that contains some interstate and some intrastate services is “mixed use.” If mixed use traffic cannot be practically separated into intrastate and interstate streams, it can be preemptively declared interstate.
    - Reaffirmed in Broadband Internet and Vonage rulings.

# Preemption Dystopia - Premises:

1. FCC declared in 2009 that the mixed use doctrine applies to all packet-based services.
2. Between 2010 and 2018 most incumbent LECs convert their networks to soft switches and packet-based systems.
3. FCC reduces small ILEC access charges without replacing lost revenues.

# Preemption Dystopia - Effects

- ILECs offer virtually no intrastate services.
  - Except intrastate private line.
- ILECs increased and deaveraged local rates
  - Used Ramsey pricing to increase rates in outlying areas without cable service
- Terms of service have changed
  - Disconnection policies widely revised
  - Some advertising and billing policies have changed

# Preemption Dystopia – More Effects

- Service quality oversight declined
  - FCC historically hasn't done much in this area.
- States USF plans have lost revenues because carriers have had less intrastate revenues
- Some rural ILECs have failed.
  - Mostly affected areas with low population density.
  - Other larger ILECs bought up assets in some areas with USF subsidies.
  - Some areas lost wireline service.
- Penetration dropped to 90%
  - Lifeline demand increased, but FCC didn't fund it.

## #2 - Technology Utopia - Premises

1. By 2011, WiMax (and similar services) were available at competitive prices in nearly all rural areas.
  - States and federal USF helped with construction grants.
  - Very few rural areas were left out.
  - Voice plus broadband available at about \$50
2. Most landline customers elected to migrate voice services to wireless or to landline-broadband providers.
  - Many nomadic VoIP providers are beyond FCC jurisdiction.

# Technology Utopia - Effects

- Everyone (nearly) has broadband.
  - Higher monthly costs.
- Market has segmented into localized monopolies
  - Cable win in some higher density areas, telcos in others
  - WiMax wins in rural areas
- Traditional PSTN has withered away.
  - Many ILECs failed.
    - Some converted to packet-based broadband and survived.
    - Many ILECs relying on TDM lost customers and closed
- Lower average service quality and reliability
  - WiMax in rural areas not quite as good as urban fiber
- Penetration dropped below 90%.
  - Mostly low-income customers who cannot afford broadband.
- Regulation (state and federal) has largely withered away.

# Technology Utopia – Public Benefits

- Increased benefits
  - Further integration of voice and data services, including numbering and addressing systems
- Many public benefits survive
  - E-911 adapted to new technologies.
  - TRS migrated to new technologies.
- Reduced benefits
  - CPNI protections spotty
  - Disability price discounts reduced
  - Law enforcement services available only from some providers

# #3 - Legal Utopia - Premises

- Telecommunications Act of 2010 simplified the law and solved many problems
  1. Abandoned many legacy PSTN distinctions
    1. Intrastate jurisdiction based on end-to-end analysis
    2. Toll v. local
    3. Access v. reciprocal comp
    4. Telecom v. information service
  2. Abandoned regulation based on industry silos
    2. Common carrier & Title I
    3. Cable TV, satellite, Internet

# Legal Utopia – (cont.)

## 3. Act of 2010 redesigned federalism

- Allocated authority based on capabilities, needs and incentives of players
  - Many shared authorities
- Federal government makes meaningful commitment to maintain rates and services at reasonable and comparable levels in rural areas.

# Legal Utopia – Federal Jurisdiction

Federal authority preempts (either by statute or by administrative action) where either:

1. A common national solution or standard will benefit the public
  - E.g. Interconnection standards, network signaling
2. States have an incentive to externalize costs
  - Access and intercarrier compensation

# Legal Utopia – State Jurisdiction

States maintain a significant role where:

1. Good policy requires knowledge of local conditions, such as where broadband is deployed.
2. Regulation requires resources not available at FCC.
  - Quasi-judicial hearings
  - Field investigations
  - Engineering expertise
3. Federal, state and local governments have a common goal that can be advanced by joint financial efforts.
  - Adequate network diversity
  - Broadband deployment

# Legal Utopia – Effects

- States signed many delegation agreements with FCC.
  - Always involves enforcement
  - Often includes policy development
- States are more engaged in:
  - Consumer protection
  - Promoting broadband coverage
  - Promoting wireless coverage
  - Maintaining PSTN services in low-density areas
  - Quality of service, especially intercarrier and for broadband-based services
- States are less engaged in:
  - Rate setting, especially intercarrier

# Legal Utopia - Public Benefits

- Many public benefits survive
  - E-911 now a state-operated and funded program.
    - FCC has minimum standards for PSAPs
  - TRS funding now entirely federal
  - Law enforcement services available from all carriers with U.S. facilities presence.

# Legal Utopia – Public Benefits continued

- States enforce many federal standards under delegation agreements.
  - CPNI
  - Lifeline
  - TRS services
  - Disability access
  - NANPA numbering systems
- Some public benefits eroded
  - Benefits reduced by states for visually and hearing impaired customers