

Telecommunications 101

Legislative Council – January 2019

Brief Regulatory History

- 1910 - ICC (Interstate Commerce Commission) begins regulating telephone service. [Mann-Elkins Act of 1910.]
- 1913 – Kingsbury Commitment – AT&T (described itself as a natural monopoly) and agreed to divest some of its services and to interconnect with other providers.
- 1934 – Communications Act of 1934
 - Established the FCC (Federal Communications Commission)
 - Dual jurisdiction: FCC (interstate); States (intrastate)
 - If there is a conflict or if “impossibility exception” applies, federal law preempts state law (Supremacy Clause)
 - Local phone companies were regulated monopolies – common carriage model
 - Must offer service to the general public, without discrimination, for the public convenience and necessity.

Communications Act of 1934

- The Act is divided into Titles I-VII (47 USCA chapter 5, subchapters I-VII)
 - Title I – General provisions
 - Title II – Common carriers
 - Title III – Radio (mobile services)
 - Title IV – Procedural and administrative provisions
 - Title VI – Cable communications
 - Title VII – Miscellaneous provisions

Bell System Breakup (1982)

- Initiated by DOJ antitrust lawsuit against AT&T in 1974
- Divestiture mandated by consent decree in 1982
 - 7 Regional Bell Operating Companies (RBOCs, aka, baby bells) provide local service
 - NYNEX (New England) + Bell Atlantic = Verizon
 - FairPoint acquired Verizon landlines (VT, ME, NH) in 2008
 - Consolidated Communications acquired FairPoint in 2017
 - AT&T retains long distance and Western Electric (telephone equipment)

Telecommunications Act of 1996

- First major overhaul of telecommunications law
- Shift in policy to deregulation
- Let any business enter the market by removing regulatory barriers and foster competition
- The conference report specifies that its purpose is “to provide for a pro-competitive, deregulatory national policy framework designed to accelerate rapidly private sector deployment of advanced information technologies and services to all Americans by opening all telecommunications markets to competition.
- Incumbents must offer competitors access to unbundled network elements (UNEs) at reasonable rates. §§ 251(c)(3), 252(d)(1). [local loops and voice switches]

Telecommunications Act - Interpreted

- “It would be a gross understatement to say that the 1996 Act is not a model of clarity. It is in many important respects a model of ambiguity or indeed even of self-contradiction. That is most unfortunate for a piece of legislation that profoundly affects a crucial segment of the economy worth tens of billions of dollars.” Justice Scalia. AT&T Corp. v. Iowa Utilities Bd., 525 U.S. 366, 397 (1999).

Classification of Service

(Determines scope of FCC authority)

- Title I “information service” (light touch)
 - The offering of a capability for generating, acquiring, storing, transforming, processing, retrieving, utilizing, or making available information via telecommunications, and includes electronic publishing, but does not include any use of any such capability for the management, control, or operation of a telecommunications system or the management of a telecommunications service. § 153(24)
- Title II “telecommunications service” (utility style)
 - The transmission, between or among points specified by the user, of information of the user’s choosing, without change in the form or content of the information as sent and received. § 153(50). A provider of a telecommunications service shall be treated as a **common carrier** under the Act. § 153(51)

Federal Regulatory Landscape

FCC

- Regulates interstate wire and radio communications
- Implements and administers “economic regulation” (market entry and prices)
- Regulatory approach is rules-based; bright-line directives

FTC

- Prevents anticompetitive, deceptive, and unfair business practices
- Goal is to protect the process of competition for the benefit of consumers
- Chief federal agency on privacy policy and enforcement
- Jurisdiction over broad sectors of economy; but there is “common carrier” exclusion
- Regulatory approach is “cases by case” enforcement; promotes transparency (informed consumer choices)

State Regulators

- **Public Utility Commission**

- Jurisdiction over companies offering “telecommunications service”
 - Intrastate voice services (prices and quality of service)
 - Cable TV service (line extensions)
 - Wireless facility siting (248a CPG; sunset 2020)
 - Pole attachments
 - Business CPGs

State Regulators (cont'd.)

- **Department of Telecommunications, Division for Telecommunications and Connectivity**
 - Telecommunications Plan (10 year period)
 - Broadband Action Plan
 - 2015, became successor to the VTA (VT Telecommunications Authority)
 - Manages and leases 340 miles of fiber
 - Administers grants
 - Broadband mapping
 - **Telecommunications and Connectivity Advisory Board**
- **Attorney General**
 - Consumer protection and antitrust (if deregulated)

Telephony Providers (voice)

- **Incumbent local exchange carriers (ILECs) – Carriers of Last Resort**
 - Traditionally rate regulated landline phone companies, operating in service territories
 - Two types:
 - 8 independent telephone companies – not price regulated; only service quality
 - 1 regional Bell operating company (RBOC) – price-capped basic local exchange service, otherwise flexibility under an Incentive Regulation Plan
- **Competitive local exchange carriers (CLECs)**
 - Mobile (cellular) service
 - VoIP providers

Internet Service Providers (ISPs) – By Type

- DSL – copper-based service
- Cable modem
- Fiber optic cables
- Wireless [mobile or fixed (terrestrial microwave)]
- Satellite

Federal Programs

- **Universal Service Fund (USF)** – established in 1996
 - High-Cost Support
 - Lifeline (started in 1985 then rolled into USF)
 - Schools and libraries – e-rate
 - Rural health providers
- **National Broadband Plan (2010)**
 - FCC’s nonbinding proposals to support universal broadband access
 - Broadband deemed “the great infrastructure challenge of the early 21st century,” akin to the rural electrification initiatives of the early twentieth century.

Federal Programs (cont'd.)

- **Connect America Fund (CAF)**
 - Established by the FCC's USF-ICC Reform Order of 2011
 - Replaced telephone-oriented High-Cost Fund with focus on rural broadband
 - Phase I – price-cap ILECs who provide 4/1 service
 - Phase II – price-cap ILECs have right of first refusal (then reverse auction); 10/1 service
 - Mobility Fund – wireless service in unserved areas (voice and BB – 4G LTE)

Federal Programs (cont'd)

- **National Telecommunications and Infrastructure Administration (NTIA)**, U.S. Department of Commerce
 - Spectrum management; grants
- **FirstNet**, independent authority within U.S. Department of Commerce
 - Created in 2012 to build and operate a nationwide broadband network for first responders
- **Rural Utilities Service**, U.S. Department of Agriculture
 - In general, RUS programs provide infrastructure to rural communities
 - Broadband loan and grant programs (new funding and criteria in the Farm bill)

State Telecom Policy

(30 V.S.A. 202c)

STATE TELECOMMUNICATIONS; POLICY AND PLANNING

(a) The General Assembly finds that advances in telecommunications technology and changes in federal regulatory policy are rapidly reshaping telecommunications services, thereby promising the people and businesses of the State communication and access to information, while creating new challenges for maintaining a robust, modern telecommunications network in Vermont.

(b) Therefore, to direct the benefits of improved telecommunications technology to all Vermonters, it is the purpose of this section and section 202d of this title to:

- (1) strengthen the State's role in telecommunications planning;
- (2) support the universal availability of appropriate infrastructure and affordable services for transmitting voice and high-speed data;
- (3) support the availability of modern mobile wireless telecommunications services along the State's travel corridors and in the State's communities;

State Telecom Policy (cont'd)

(30 V.S.A. 202c)

(4) provide for high-quality, reliable telecommunications services for Vermont businesses and residents;

(5) provide the benefits of future advances in telecommunications technologies to Vermont residents and businesses;

(6) support competitive choice for consumers among telecommunications service providers and promote open access among competitive service providers on nondiscriminatory terms to networks over which broadband and telecommunications services are delivered;

(7) support the application of telecommunications technology to maintain and improve governmental and public services, public safety, and the economic development of the State;

(8) support deployment of broadband infrastructure that:

(A) uses the best commercially available technology;

(B) does not negatively affect the ability of Vermont to take advantage of future improvements in broadband technology or result in widespread installation of technology that becomes outmoded within a short period after installation;

State Telecom Policy (cont'd)

30 V.S.A. 202c

(9) in the deployment of broadband infrastructure, encourage the use of existing facilities, such as existing utility poles and corridors and other structures, in preference to the construction of new facilities or the replacement of existing structures with taller structures; and

(10) support measures designed to ensure that by the end of the year 2024 every E-911 business and residential location in Vermont has infrastructure capable of delivering Internet access with service that has a minimum download speed of 100 Mbps and is symmetrical.

State Programs

- **Vermont Universal Service fund programs**
 - Relay service (vision/hearing/speech disabilities) - \$191k in '17
 - Lifeline - \$528k in '17
 - E-911 - \$4.7M in '17
 - High-Cost Program – subsidy for ILECs serving rural locations; voice and 4/1 service - \$475k in '17
 - Connectivity Initiative – grants for at least 10/1 service - \$423 in '17
- Revenue derived from a 2% surcharge on retail telecommunications. Raised \$6.2M in '17.
 - VoIP contribution dispute – interconnected (fixed and nomadic)

Framework for Analyzing Law and Policy

- Relevant factors, very generally:
 - **Market**
 - Consolidation of infrastructure
 - Vertical integration (transmission and content)
 - **Technology**
 - Convergence (IP); evolving capabilities and functions
 - **Usage**
 - Increasing reliance on Internet service

Telecom Reports to the General Assembly (Ongoing)

- Telecommunications Plan – joint hearing TBD
 - Last plan adopted September 2014
 - DPS must institute a major review every 3 years
 - Prior to adoption, DPS must submit a final “draft” plan to the legislative committees of jurisdiction. DPS must consider the testimony presented at such hearing when preparing the final Plan
- Annual Report on Connectivity Division Activities - due January 15
 - Includes Broadband Action Plan
 - Summary of grants and contracts
 - Maps of served and unserved areas based on speed of broadband service

Telecom Reports (cont'd)

(One-time reports)

- E-911 System Resiliency and Redundancy Report – due September 1, 2018; prepared by Executive Director of the E-911 Board
- Report on E-911 Jurisdictional Issues – due September 1, 2018; prepared by the PUC
- Progress Report on VTA Wireless Network and NEC Fiber Network Projects – due September 1, 2018; prepared by DPS
- Report on E-911-Compliant Microcell Service in VT – due December 1, 2018; prepared by DPS
- Report on State Net Neutrality Rules – due December 15, 2018; prepared by AG and DPS
- Report on Telecom Privacy Rules – due December 15, 2018; prepared by AG and DPS
- Broadband Availability for Remote Workers Report – due January 1, 2018; prepared by DPS and ACCD
- Study on Establishment of Communications Facilitator Program – due December 15, 2018; prepared by DPS and DAIL

Not Included Here

- State IT oversight and management
- Joint Information Technology Oversight Committee