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TELECOMMUNICATIONS REGULATION

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Telecommunications Regulation

I. Introduction

The purpose of this Legislative Guide is to provide a general overview of the regulation of the provision of telecommunications services in the State of Iowa. The Guide includes a brief history of the regulation of telecommunications at the federal level and in Iowa since the industry began, provides a description of the regulatory entities and their regulatory procedures and requirements, describes the regulatory provisions found in the Iowa Code regarding the provision of telecommunications services, and describes certain federally regulated and nonregulated telecommunications services such as mobile and wireless devices, the Internet, and other related topics. A glossary of commonly used telecommunications terminology and concepts is included.

References to the Code are to the 2021 Iowa Code and references to the Iowa Administrative Code are to references published as of July 2020 unless specifically stated otherwise.

II. History of Regulation of Telecommunications

In 1877, Alexander Graham Bell, Gardiner Hubbard, and Thomas Sanders formed the Bell Telephone Company. In 1885, American Telephone and Telegraph Co. (AT&T) was incorporated as a subsidiary of Bell Telephone Company. AT&T was used to build and operate the first long-distance phone network. In 1899, AT&T purchased Bell Telephone Company's assets and became the parent company of the Bell Telephone Company system.¹

In 1913, AT&T reached a settlement with the Justice Department known as the Kingsbury Commitment. Pursuant to the Kingsbury Commitment, AT&T divested itself of Western Union and permitted other telephone companies to access its network. In addition, the Kingsbury Commitment required AT&T to seek approval from the United States government prior to buying competitors.²

Congress passed the federal Communications Act of 1934 creating the Federal Communications Commission (FCC) to regulate interstate telephone, radio, and telegraph companies operating in the United States.³ The commission is composed of five commissioners appointed by the President and approved by the Senate.⁴ The Act was intended to make wire (telephone) and radio communication services available to all residents of the United States and ensure reasonable rates for telephone service.⁵ While the FCC would regulate all interstate communications services, states maintained their authority to individually regulate intrastate services.⁶ Whether a call is considered interstate or intrastate has been traditionally determined by the end points of the call. If the calling party and the called party were in the same state, the call was considered intrastate regardless of the path the call actually took.

In 1984, as a result of an antitrust lawsuit filed by the United States Department of Justice, AT&T was broken up into seven regional companies. AT&T retained Bell

¹ The Story of Ma Bell: A Brief History of the Company that is as Old as the Telephone Itself, CNN Money (July 9, 2001, 3:18 PM), money.cnn.com/2001/07/09/deals/att_history (last visited Aug. 20, 2020).

² Dave Butler, History of AT&T: Timeline and Facts, TheStreet (Feb. 18, 2020, 7:06 PM), www.thestreet.com/technology/history-of-att (last visited Aug. 20, 2020).

³ Communications Act of 1934, Pub. L. No. 73-416, 48 Stat. 1064, (codified at 47 U.S.C. §151 et seq. (2018)).

⁴ 47 U.S.C. §154(a) (2018).

⁵ 47 U.S.C. §151 (2018).

⁶ 47 U.S.C. §214 (2018).



Labs, Western Electric, and a long distance service. The regional companies acquired companies that provided local telephone service and the yellow pages.⁷

III. Current Federal Regulation

The passage of the federal Telecommunications Act of 1996 reflected a change in federal policy from a legal monopoly to an emphasis on competition.⁸ The 1996 Act opened local exchange markets by requiring the incumbent local exchange carriers to open their networks to competitor companies. Competitors may access the network by purchasing services at wholesale rates for resale, leasing elements of the network on an unbundled basis at wholesale cost for resale, or interconnecting the competitor's own facilities directly to the incumbent carrier's network.⁹ This network access must also be provided without unreasonable or discriminatory conditions or limitations on the resale of telecommunications services.¹⁰ If the incumbent carrier cannot agree on terms with the competitor requesting access, the parties may request arbitration services from a state commission, such as the Iowa Utilities Board (IUB).¹¹

The 1996 Act preserved the state regulation of interconnection obligations of local exchange carriers as long as the regulations do not conflict with the provisions of the Act.¹² All telecommunications carriers are prohibited from subsidizing competitive services with noncompetitive services.¹³ The Act further required number portability, dialing parity, and access to rights-of-way.¹⁴ The Act also allowed Bell operating companies to manufacture telecommunications equipment and offer long distance services which had been restricted by the AT&T Consent Agreement.¹⁵

The 1996 Act revamped the universal service policy to further encourage the extension of telecommunications services to all consumers at nondiscriminatory prices regardless of additional costs to rural areas.¹⁶ Prior to the Act, carriers would use revenues from long distance services to subsidize the costs of providing local service. The new policy requires every telecommunications carrier providing interstate service to contribute to a fund to ensure that telecommunications services are provided to supported customers, including health care providers, educational providers, and libraries in rural and high-cost-to-reach areas.¹⁷ Carriers may then request funds from the Universal Service Fund for the provision, maintenance, and upgrading of facilities and services for supported customers.¹⁸ Carriers are prohibited from charging customers of interexchange and interstate services in rural and other high-cost areas higher rates than the carriers charge to customers in urban areas.¹⁹

⁷ The Story of Ma Bell: A Brief History of the Company that is as Old as the Telephone Itself, CNN Money (July 9, 2001, 3:18 PM), money.cnn.com/2001/07/09/deals/att_history (last visited Aug. 20, 2020).

⁸ Pub. L. No. 104-104; 110 Stat. 56 (amending the Communications Act of 1934, 47 U.S.C. §151 et seq. (2018)).

⁹ 47 U.S.C. §251 (2018).

¹⁰ 47 U.S.C. §251(b), (c) (2018).

¹¹ 47 U.S.C. §252 (2018).

¹² 47 U.S.C. §§251(d), 261 (2018).

¹³ 47 U.S.C. §§254(k), 260(a)(1), 273(g), 275(b)(2), 276(a)(1) (2018).

¹⁴ 47 U.S.C. §251(b) (2018).

¹⁵ 47 U.S.C. §273 (2018).

¹⁶ 47 U.S.C. §254(b) (2018).

¹⁷ 47 U.S.C. §254(d), (h) (2018).

¹⁸ 47 U.S.C. §254(e) (2018).

¹⁹ 47 U.S.C. §254(g) (2018).



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IV. State Regulatory Entities

A. Iowa Utilities Board — Department of Commerce

The IUB, a division of the Department of Commerce, is responsible for the regulation of telecommunications and other public utilities in Iowa pursuant to Iowa Code chapter 476. The IUB began as the Iowa Board of Railroad Commissioners in 1878, regulating railroad passenger and freight rates and operations. In 1911, the Iowa Legislature created the Office of Commerce Counsel within the Railroad Commission to assist with regulation and location of electric transmission lines in Iowa. After authority was expanded to include the regulation of grain warehouses, passenger and freight rates for motor truck transportation, and natural gas pipelines, the agency was renamed the Iowa State Commerce Commission in 1937.

Electric and gas rates and services were governed by local governments until 1963 when those duties were given to the Iowa State Commerce Commission. In 1976, electric utilities were granted exclusive service areas and the Iowa State Commerce Commission began to issue certificates of public convenience, use, and necessity for the construction of electric generating facilities. The Iowa State Commerce Commission was renamed the IUB in 1986 and was made a division of the Department of Commerce.

In 2004 and 2005, the IUB deregulated the rates for local telephone service in Iowa exchanges where it found there was effective competition. The IUB continues to regulate limited aspects of the operation of local telephone service.

In 2005, legislation removed price regulation from all local telephone service in Iowa except the most basic single-line residential and business services of the state's large incumbent local exchange carriers. This legislation provided a three-to-five-year phase-out period during which the IUB continued to regulate the prices of the incumbent carriers' basic services.

In 2008, the IUB issued an order finding that sufficient market forces existed throughout Iowa to constrain the price of single-line, flat-rated residential and business rates. The record indicated competitive offerings from competitive local exchange carriers, wireless carriers, and cable providers were available in many parts of the state, and most consumers had a choice of telecommunications service providers. As a result, effective July 1, 2008, the IUB was divested of retail rate jurisdiction over single-line, flat-rated residential and business service rates of local exchange telecommunications carriers in Iowa.²⁰

The IUB consists of three members who are appointed by the Governor for six-year staggered terms.²¹ One member is selected by the Governor to be the chairperson of the IUB, who also serves as administrator of the Utilities Division.²² The three members are subject to confirmation by the Iowa Senate. The IUB has broad general powers to enforce the provisions of Iowa Code chapter 476, including the authority to issue subpoenas, hire employees and other professionals, intervene in Federal Energy Regulatory Commission proceedings or state proceedings which may affect the costs of any public utility service,

²⁰ Iowa Utilities Board, History of the Iowa Utilities Board, iub.iowa.gov/about-us/history-iowa-utilities-board (last visited Aug. 18, 2020).

²¹ Iowa Code §474.1.

²² Iowa Code §474.1.



and inquire into the management of and obtain any necessary information from public utilities.²³

B. Consumer Advocate

The Office of Consumer Advocate was created in 1983 to represent the public interest in rate cases.²⁴ The Office of Consumer Advocate was made a division of the Iowa Department of Justice in 1986.²⁵ The Consumer Advocate is appointed by the Iowa Attorney General and subject to confirmation by the Iowa Senate.²⁶ The Consumer Advocate serves a four-year term and is the administrator of the Consumer Advocate Division of the Iowa Department of Justice.²⁷ The duties of the Consumer Advocate include investigation of the legality of all rates, charges, rules, regulations, and practices of all persons under the jurisdiction of the IUB and instituting legal proceedings to correct any illegal activities.²⁸ The Consumer Advocate acts as the attorney for and represents all consumers and members of the public generally in proceedings before the IUB or in any state or federal court.²⁹ The Consumer Advocate may employ attorneys and other employees and has free access to all records of the IUB except confidential personnel records, attorney work product, and certain confidential customer information.³⁰

V. Regulation of Telecommunications Services

A. Regulation Authority

The IUB regulates the rates and services of public utilities as provided in Iowa Code chapter 476. Public utilities include those utilities that furnish gas, electricity, communications services, water, and sanitary sewage disposal to the public for compensation.³¹ As a result of the deregulation discussed in Part IV of this Guide, the IUB now regulates only certain aspects of communications services.³² The IUB retains the ability to reimpose rate and service regulations on communications services in the event the IUB determines “the service or facility is no longer subject to effective competition.”³³ The IUB may also reimpose service regulations on communications services in the event the IUB determines “the service or facility is an essential communications service or facility and the public interest warrants service regulation”³⁴ In addition, the IUB may exercise any powers the federal Telecommunications Act of 1996, or any other federal law, reserved or delegated to the state.³⁵ Wireless carriers are not subject to either rate or service regulation since deregulated by the IUB in 1986.³⁶

²³ Iowa Code §476.2.

²⁴ Iowa Utilities Board, History of the Iowa Utilities Board, iub.iowa.gov/about-us/history-iowa-utilities-board (last visited Aug. 18, 2020).

²⁵ Id.

²⁶ Iowa Code §475A.1.

²⁷ Iowa Code §475A.1.

²⁸ Iowa Code §475A.2.

²⁹ Iowa Code §475A.2.

³⁰ Iowa Code §§475A.3, 475A.4.

³¹ Iowa Code §476.1(3).

³² Iowa Code §§476.95A, 476.95B, 476.100, 476.102, 476.103; see also Iowa Code §476.1B(3) (“Unless otherwise specifically provided by statute, a municipally owned utility providing local exchange services is not subject to regulation by the board under this chapter except for regulatory action pertaining to the enforcement of sections 476.95, 476.95A, 476.95B, 476.100, and 476.102.”).

³³ Iowa Code §476.1D(6).

³⁴ Iowa Code §476.1D(7).

³⁵ Iowa Code §476.95B(1).

³⁶ In re Mobile Telephone and Paging Service, Docket No. INU—86-2, “Order Terminating Investigation,” IUB, August 7, 1986.



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B. Regulation

Telecommunications service providers who provide local exchange or long distance telephone service, and who offer telephone numbers to customers in Iowa, are required to register annually with the IUB.³⁷ Failure to register may result in a civil penalty.³⁸

Public utilities are generally prohibited from discontinuing, reducing, or impairing service to a community, except in emergencies or for nonpayment.³⁹ However, this prohibition does not apply to those telecommunications service providers who provide local exchange or long distance telephone service and who register with the IUB.⁴⁰

The Iowa Code provides for certain limitations on the activities of local exchange carriers, including prohibitions on:

- Discriminating against another provider by delaying access or refusing access to the local exchange carrier's services.⁴¹
- Discriminating against another provider by delaying access or refusing access to essential facilities on terms the local exchange carrier provides to itself and its affiliates.⁴²
- Degrading the quality of service or access to another provider.⁴³
- Failing to disclose information necessary for the design of equipment, services, or software that will meet the specifications of the local exchange carrier's network.⁴⁴
- Unreasonably delaying, refusing, or providing inferior connections to another provider.⁴⁵
- Using basic exchange service rates to subsidize the costs of the local exchange carrier's other products or services.⁴⁶
- Using pricing of a telephone service or the extension of credit for a telephone service to discriminate in favor of itself or an affiliate.⁴⁷

Pursuant to Iowa Code section 476.103, the IUB adopted rules to protect consumers from unauthorized changes to their telecommunications service.⁴⁸ The rules prohibit "unauthorized changes in telecommunications service, including but not limited to cramming and slamming" ⁴⁹ The customer's consent is required before a service provider may "submit a preferred telecommunications service provider change order

³⁷ Iowa Code §476.95A(1).

³⁸ Iowa Code §§476.51, 476.95A(5).

³⁹ Iowa Code §476.20(1)(a).

⁴⁰ Iowa Code §§476.20(6), 476.95A(1).

⁴¹ Iowa Code §476.100(1).

⁴² Iowa Code §476.100(2).

⁴³ Iowa Code §476.100(3).

⁴⁴ Iowa Code §476.100(4).

⁴⁵ Iowa Code §476.100(5).

⁴⁶ Iowa Code §476.100(6).

⁴⁷ Iowa Code §476.100(7).

⁴⁸ Iowa Admin. Code 199-22.9.

⁴⁹ Iowa Admin. Code 199-22.9(2). Pursuant to Iowa Admin. Code 199-22.9(1), the rules define "change in service" as "the designation of a new provider of a telecommunications service to a customer, including the initial selection of a service provider, and includes the addition or deletion of a telecommunications service for which a separate charge is made to a customer account." The rules define "cramming" as "the addition or deletion of a product or service for which a separate charge is made to a telecommunications service customer's account without the verified consent of the affected customer." The rules define "slamming" as "the designation of a new telecommunications service provider to a customer, including the initial selection of a telecommunications service provider, without the verified consent of the customer."



or other change in service order to another service provider”⁵⁰ In terms of other changes in service that result in additional charges to existing accounts, the rules require the service provider to establish a valid customer request for the change in service through maintenance of sufficient internal records.⁵¹

C. Enforcement Provisions of the Board

If a public telephone utility violates any provision of Iowa Code chapter 476 or a rule adopted pursuant to Iowa Code chapter 476, the IUB must first give a written notice to the utility of the violation.⁵² Upon a second or subsequent violation of the same provision or rule, the IUB may issue a civil penalty in the amount of at least \$100 up to \$2,500 for each violation.⁵³ Willful second and subsequent violations may result in penalties from \$1,000 to \$10,000 per violation.⁵⁴ Such penalties collected from telecommunications companies are deposited in the Department of Commerce revolving fund to be used for consumer education programs administered by the IUB.⁵⁵ The IUB may also file an action in district court against a public utility or any other person for an injunction to prevent or stop any violation of Iowa Code chapter 476.⁵⁶

The IUB may receive complaints from local exchange carriers of antitrust activities of other local exchange carriers. The IUB may conduct a hearing on such complaints and if the IUB finds that a local exchange carrier has engaged in an activity inconsistent with antitrust laws, it may order the carrier to correct the antitrust activity by adjusting the carrier’s retail rate, order the carrier to pay costs incurred by the complaining carrier, assess a civil penalty against the carrier, or order the carrier or a complainant to pay costs and reasonable attorney fees.⁵⁷

D. Deregulated Services

The following communications services have been deregulated by order of the IUB.

- 1982 - Terminal equipment (telephones) - Docket No. RMU-82-1.
- 1984 - Centrex, interexchange private lines - Docket No. RPU-84-8.
- 1985 - Pay telephones - Docket No. RMU-85-6.
- 1986 - Mobile telephones and paging services - Docket No. INU-86-2.
- 1987 - Pay telephone service lines - Docket No. RMU-87-18.
- 1988 - InterLATA long distance, WATS, and private lines - Docket No. INU-88-2.
- 1995 - All long distance services other than intraLATA nonequal access service - Docket No. INU-95-3.
- 2000 - Local directory assistance - Docket No. INU-00-3.

⁵⁰ Iowa Admin. Code 199-22.9(2)(a)(1).

⁵¹ Iowa Admin. Code 199-22.9(2)(a)(4).

⁵² Iowa Code §476.51(1).

⁵³ Iowa Code §476.51(1).

⁵⁴ Iowa Code §476.51(2).

⁵⁵ Iowa Code §476.51(5).

⁵⁶ Iowa Code §476.14.

⁵⁷ Iowa Code §476.55.



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VI. Dual Party Relay

The Dual Party Relay Service is a program administered by the IUB to enable persons with communications disorders to access and communicate with voice telephone users using text via the telephone system.⁵⁸

With the advice of the Dual Party Relay Council, the IUB administers a program to secure, finance, and distribute telecommunications devices for individuals who are deaf and hard of hearing.⁵⁹ Individuals apply to the program administrator for a voucher.⁶⁰ The IUB has adopted eligibility criteria to determine who may receive a voucher.⁶¹ If a voucher is awarded, the individual may use the voucher to purchase equipment from a vendor.⁶² After the purchase is made, the vendor submits the voucher to the program administrator, and the IUB issues a state warrant to the vendor for the amount due under the voucher.⁶³

The Dual Party Relay Service and the program to distribute telecommunications devices for individuals who are deaf and hard of hearing are funded through an assessment on all wireless and wire-line local exchange carriers that provide telecommunications service in Iowa.⁶⁴

VII. Municipal Utilities

A city may form a telecommunications utility in the same manner as any other city utility pursuant to the requirements of Iowa Code chapter 388. A proposal to establish a municipal telecommunications utility must be submitted to the voters of the city at the general election, the regular city election, or at a special election by the city council on its own motion or if a valid petition is submitted requesting that the proposal be submitted at the next regular city election to the voters.⁶⁵ If a proposal is approved by a majority of the voters, the city may proceed according to the proposal.⁶⁶ If a proposal does not receive majority voter approval, the same or a similar proposal may not be submitted to the voters of the city for at least four years from the date of the election at which the proposal was defeated.⁶⁷

Municipal utilities providing telecommunications services are not public utilities regulated by the IUB pursuant to Iowa Code section 476.1 but are subject to certain restrictions pursuant to Iowa Code section 388.10. Services subject to the restrictions include the telecommunications services of local exchange telephone services, long distance telephone services, Internet access services, and cable television services.⁶⁸ A city that operates a telecommunications utility is prohibited from using General Fund revenue or revenue generated from electric, gas, water, sewage, or garbage services provided by the city to support or otherwise cross-subsidize the telecommunications utility.⁶⁹ The city may, however, market the bundling of city services with municipal

⁵⁸ Iowa Code ch. 477C.

⁵⁹ Iowa Code §477C.4.

⁶⁰ Iowa Admin. Code 199-37.2.

⁶¹ Iowa Admin. Code 199-37.3.

⁶² Iowa Admin. Code 199-37.5.

⁶³ Iowa Admin. Code 199-37.5.

⁶⁴ Iowa Code §477C.7.

⁶⁵ Iowa Code §388.2(1)(b).

⁶⁶ Iowa Code §388.2(2)(a).

⁶⁷ Iowa Code §388.2(2)(b).

⁶⁸ Iowa Code §388.10(1).

⁶⁹ Iowa Code §388.10(1).



telecommunications services if a separate charge for each service is provided.⁷⁰ The city is restricted from providing any city facilities, equipment, or services to the utility at a cost which is less than the reasonable cost of providing such facilities, equipment, or services.⁷¹ The city is prohibited from providing any other city service to any of its telecommunications customers at a cost less than any other person who is not a customer of the municipal telecommunications utility would pay.⁷²

Cities that own or operate a municipal telecommunications utility are required to maintain full accounting records of the costs of providing telecommunications services, including the amount and source for capital for initial construction or acquisition.⁷³ The accounting may include a reasonable allocation of the cost of use of any city employees, facilities, equipment, or services used by the municipal telecommunications utility.⁷⁴ The records shall generally be made available to the public subject to Iowa's open records law.⁷⁵ Rates that a municipal telecommunications utility charges must reflect the actual cost of providing the services.⁷⁶ Cities that own or operate a municipal telecommunications utility must certify compliance through an audit performed pursuant to Iowa Code section 11.6, through the Auditor of State, or through a certified public accountant.⁷⁷

VIII. Wireless Communications Services

Wireless communications services provided through cellular, digital, or personal communications services technology are not generally regulated by the state. Instead, wireless carriers must be licensed through the Federal Communications Commission (FCC). The Wireless Telecommunications Bureau of the FCC administers all FCC domestic wireless telecommunications programs and policies, including licensing, enforcement, and regulatory functions, except those involving satellite communications.⁷⁸

A. Coverage Issues

The coverage of a mobile telephone refers to the geographic area where a mobile telephone can receive a signal from the mobile carrier's network and customers can use their mobile phones. The coverage of each mobile carrier is determined by where the carrier has built its network within its licensed areas. Analog networks cover most of the United States, while digital networks currently cover less area. The newer technology digital networks are clearer, more secure, and more feature-rich than the older technology analog networks. Carriers may agree to share their networks with other carriers, allowing subscribers to "roam" on the other carrier's network, usually for an additional or increased fee. Topography and network architecture and capacity may also affect coverage, resulting in "dropped calls" and "dead spots." A dropped call results when a carrier fails to transfer a call in progress when traveling from one part of the carrier's network to another. A dead spot may occur when the topography blocks the signal from the telephone to the

⁷⁰ Iowa Code §388.10(3).

⁷¹ Iowa Code §388.10(1).

⁷² Iowa Code §388.10(1).

⁷³ Iowa Code §388.10(2).

⁷⁴ Iowa Code §388.10(2).

⁷⁵ Iowa Code §388.10(2).

⁷⁶ Iowa Code §388.10(2).

⁷⁷ Iowa Code §388.10(2).

⁷⁸ 47 C.F.R. §0.131 (2020).



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cell tower. Because of these issues, coverage maps provided by mobile carriers are not necessarily representative of actual coverage.⁷⁹

B. National Do Not Call Registry

The National Do Not Call Registry was put into place following the passage of the Telemarketing and Consumer Fraud and Abuse Prevention Act.⁸⁰ The Federal Trade Commission (FTC) is responsible for maintaining the National Do Not Call Registry.⁸¹ If a number is registered with the National Do Not Call Registry, the FTC prohibits commercial telemarketers from calling that number, subject to limited exceptions.⁸² Companies that illegally call numbers on the National Do Not Call Registry may be fined up to \$42,530 per call. Registering a number with the National Do Not Call Registry does not prevent political calls, charitable calls, debt collection calls, purely informational calls, or surveys.

It may take up to 31 days for sales calls to stop after a number is added to the National Do Not Call Registry. The FTC will only remove a number from the National Do Not Call Registry if it is disconnected or reassigned or if the customer asks that it be removed. The registration does not expire. Phone numbers for mobile phones may be added to the National Do Not Call Registry.⁸³

C. Wireless Emergency Alerts System

The Warning, Alert, and Response Network Act established the Wireless Emergency Alerts (WEA) system in 2008.⁸⁴ The WEA system became operational in 2012. Government officials may use the WEA system to target emergency alerts to specific areas. The WEA system allows customers who own compatible mobile devices to receive geographically targeted messages alerting them of imminent threats to safety in their area. There are four different types of alerts issued pursuant to the WEA system: (1) alerts issued by the President of the United States, (2) alerts involving imminent threats to safety or life, (3) Amber Alerts, and (4) alerts regarding recommendations for saving lives or property.

Wireless companies volunteer to participate in the WEA system, which is the result of a public/private partnership between the Federal Emergency Management Administration, the Federal Communications Commission (FCC), and the United States wireless industry. The FCC does not send alerts through the WEA system, but adopts technical and operational requirements for the service. The alerts originate with other federal agencies, state government authorities, and local government authorities.⁸⁵

⁷⁹ Federal Communications Commission, Mobility Fund Phase II Coverage Maps Investigation Staff Report, p. 52 (2019), docs.fcc.gov/public/attachments/DOC-361165A1.pdf (last visited Aug. 25, 2020) (“Our analysis and speed tests suggest that the submitted MF-II coverage maps did not match actual coverage in many instances.”).

⁸⁰ Pub. L. No. 103-297, 108 Stat. 1545, (codified at 15 U.S.C. §6101 et seq. (2018)).

⁸¹ 16 C.F.R. §310.4 (2020).

⁸² Iowa Department of Justice, National Do Not Call Registry, www.iowaattorneygeneral.gov/for-consumers/general-consumer-information/national-do-not-call-registry (last visited Aug. 26, 2020).

⁸³ Federal Trade Commission, National Do Not Call Registry (June 2019), www.consumer.ftc.gov/articles/0108-national-do-not-call-registry (last visited Aug. 25, 2020).

⁸⁴ Pub. L. No. 109-347, 120 Stat. 1884 (codified at 47 U.S.C. §1201 et seq. (2018)).

⁸⁵ Federal Communications Commission, Wireless Emergency Alerts (WEA) (Apr. 8, 2020), www.fcc.gov/consumers/guides/wireless-emergency-alerts-wea (last visited Aug. 25, 2020).



IX. Internet Services

The Internet is a system of electronic communications networks linked by telecommunication channels using standardized protocols which facilitates electronic communication services, including but not limited to use of the world wide web; the transmission of electronic mail or messages; the transfer of files and data or other electronic information; and the transmission of voice, image, and video.⁸⁶ Internet connection can be obtained by contacting an Internet service provider (ISP) and signing up for service, usually for a monthly fee. Neither the state nor federal governments directly regulate the provision of Internet services, although consumer fraud issues may be reported to the Iowa Attorney General or the Federal Trade Commission's Bureau of Consumer Protection.

A. Broadband

“Broadband” is a term that refers to high-speed Internet access. There are several different types of broadband, including digital subscriber line (DSL), cable modem, fiber optic technology (fiber), wireless, satellite, and broadband over powerlines (BPL).

DSL is a wireline transmission technology that transmits data over traditional copper telephone lines. DSL provides transmission speeds that range from several hundred kilobytes per second to millions of bits per second. The speed of DSL depends on the customer's distance to the closest telephone company utility. There are multiple types of DSL transmission technologies, including asymmetrical digital subscriber lines, symmetrical digital subscriber lines, high data rate digital subscriber lines, and very high data rate digital subscriber lines.

Cable modem broadband service allows cable operators to provide Internet service using the same cables that deliver cable television. Cable modems provide transmission speeds comparable to DSL. The speed of Internet access provided by a cable modem depends on “the type of cable modem, cable network, and traffic load.”

Fiber converts electrical signals into light and transmits that light through transparent glass fibers. Fiber provides transmission speeds far exceeding that offered by DSL or cable modems. The speed of fiber depends on how close the service provider brings the fiber to the computer or other device and how the service provider configures the service. Service providers offer fiber in limited areas.

Wireless broadband service uses a radio link between a customer and the service provider's facility to allow a customer to access the Internet. Wireless can be used to provide access to broadband in areas where DSL or cable modem service do not exist—typically rural areas. Wireless generally provides transmission speeds comparable to DSL and cable modems. Wireless may be offered over a fixed network, which allows customers to access the internet from a fixed point that often requires a direct line-of-sight between the transmitter and receiver. Wireless may also be offered over wireless local area networks, which provide broadband access over shorter distances and are often used to extend the reach of a last-mile broadband connection. Finally, wireless broadband service may also be offered by mobile service providers.

⁸⁶ Iowa Code §4.1(9B).



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Satellites also provide access to broadband. Similar to wireless, satellites are typically used to provide rural areas with access to broadband. The speed of broadband provided by satellite depends on numerous factors, “including the provider and service package purchased, the consumer’s line of sight to the orbiting satellite, and the weather.”

BPL refers to the delivery of broadband over the existing electric power distribution network. As a result, BPL can be provided to homes and businesses that use existing electrical connections. BPL generally provides transmission speeds comparable to DSL and cable modems. BPL is an emerging technology that is available in limited areas.⁸⁷

B. VoIP

Voice over Internet Protocol (VoIP) allows consumers to make telephone calls using a broadband Internet connection instead of regular telephone lines. VoIP services offer many of the same service options as traditional telephones while generally at a much lower or no cost to the consumer other than the cost of broadband access, depending on the service provider. Calls can be made using a computer or a special VoIP telephone connected to the broadband connection. Some providers offer only calls to other VoIP users while others will allow connection to any phone number in the world for an additional charge. There are few federal regulations governing VoIP services, but the FCC has mandated VoIP providers to provide E911 service to all customers to enable public safety responders to locate the call in the same manner as from traditional telephones.⁸⁸ The FCC has also determined that VoIP providers are not subject to traditional state public utility regulation.

C. Broadband Grants

The Office of the Chief Information Officer (OCIO) administers a broadband grant fund designed to reduce the number of areas in the state underserved by broadband services.⁸⁹ The OCIO awards communications service providers moneys from the broadband grant fund to help the communications service providers install broadband infrastructure that facilitates broadband service at or above certain speeds.⁹⁰ The OCIO awards the grants on a competitive basis after taking into consideration multiple factors, including the need for broadband infrastructure in the area, existing broadband service speeds, the applicant’s total proposed budget, the amount of matching funds, funding obligations shared between public and private entities, and the percentage of funding provided by the applicant.⁹¹

X. 911 Emergency Telephone Systems

The Iowa Department of Homeland Security and Emergency Management (HSEMD) is responsible for administering the state’s 911 emergency telephone systems through a 911 Program Manager, appointed by the Director of HSEMD.⁹² The 911 Communications Council advises and makes recommendations to the Director of HSEMD and the 911 Program Manager regarding the state’s 911 emergency telephone systems.⁹³

⁸⁷ Federal Communications Commission, Types of Broadband Connections (June 23, 2014), www.fcc.gov/general/types-broadband-connections (last visited Aug. 26, 2020).

⁸⁸ Federal Communications Commission, Voice Over Internet Protocol (VoIP), www.fcc.gov/general/voice-over-internet-protocol-voip (last visited Aug. 25, 2020).

⁸⁹ Iowa Code §8B.11(1).

⁹⁰ Iowa Code §8B.11(3).

⁹¹ Iowa Code §8B.11(4).

⁹² Iowa Code §34A.2A.

⁹³ Iowa Code §34A.15(3).



Each county in the state is required to establish and maintain a joint 911 service board for the purpose of implementing a 911 service system.⁹⁴ With limited exceptions, a county's joint 911 service board is required to maintain a 911 service plan encompassing, at a minimum, the entire county.⁹⁵ The 911 service plan is required to contain numerous provisions, including: a description of the 911 service area, the estimated costs to be incurred by the joint 911 service board, a schedule for implementation of the 911 service plan, and the number of telephone access lines and voice over Internet protocol service connections capable of access to 911 in the 911 service area.⁹⁶

A joint 911 service board's 911 service system is funded through various surcharges, and may also be funded through the issuance of bonds. The wire-line portion of the 911 service system is funded through a \$1 monthly surcharge per access line.⁹⁷ The local exchange service providers collect this surcharge as part of their periodic billing to their subscribers.⁹⁸ To compensate the local exchange providers for the costs of billing and collecting the surcharge, the local exchange providers are permitted to retain one percent of the surcharges they collect.⁹⁹ The wireless portion of the 911 service system is funded through a \$1 monthly surcharge per originating service number.¹⁰⁰ The originating service providers collect this surcharge as part of their periodic billing to their subscribers.¹⁰¹ To compensate the originating service providers for the costs of billing and collecting the surcharge, the originating service providers are permitted to retain one percent of the surcharges they collect.¹⁰² The prepaid portion of the 911 service system is funded through a surcharge on each purchase of prepaid wireless telecommunications service.¹⁰³ The Iowa Finance Authority may issue bonds and notes to assist in covering costs in 911 service areas.¹⁰⁴

XI. Iowa Communications Network

The Iowa Telecommunications and Technology Commission (ITTC) supervises the management, development, and operation of the Iowa communications network.¹⁰⁵ The ITTC is composed of five members.¹⁰⁶ The members are appointed by the Governor and confirmed by the Iowa Senate.¹⁰⁷

The Iowa Communications Network (ICN) is a fiber optic network that provides telecommunications services to schools, colleges, universities, hospitals, clinics, state government, federal government, National Guard armories, and libraries.¹⁰⁸ The ITTC funds the operation of the ICN through appropriations, the issuance of bonds, and leasing its facilities.¹⁰⁹

⁹⁴ Iowa Code §34A.3(1).

⁹⁵ Iowa Code §34A.3(1)(b).

⁹⁶ Iowa Code §34A.2(5).

⁹⁷ Iowa Code §34A.7(1)(a).

⁹⁸ Iowa Code §34A.7(2)(a).

⁹⁹ Iowa Code §34A.7(2)(a).

¹⁰⁰ Iowa Code §34A.7A(1)(a).

¹⁰¹ Iowa Code §34A.7A(1)(c).

¹⁰² Iowa Code §34A.7A(1)(c).

¹⁰³ Iowa Code §34A.7B(2).

¹⁰⁴ Iowa Code §34A.20(3).

¹⁰⁵ Iowa Code §8D.3(1).

¹⁰⁶ Iowa Code §8D.3(2)(a).

¹⁰⁷ Iowa Code §8D.3(2)(a).

¹⁰⁸ Iowa Communications Network, About the ICN, icn.iowa.gov/about-icn (last visited Aug. 27, 2020).

¹⁰⁹ Iowa Code §8D.14.



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XII. Iowa Cell Siting Act

Iowa has adopted uniform rules and limitations that state and local entities are required to follow with respect to regulating equipment used to facilitate wireless communications technology. Those rules and limitations are found in the Iowa Cell Siting Act (Act).¹¹⁰

Pursuant to the Act, state and local entities are prohibited from taking numerous actions with respect to applications to construct or put into place new towers or transmission equipment relating to wireless communication telecommunication services or infrastructure.¹¹¹ For example, state and local entities may not evaluate an application based on the availability of other potential locations for the construction or placement, dictate the type of transmission equipment to be used, require the removal of existing equipment as a condition for approval of the application, establish or enforce regulations for radio frequency signal strength, or impose discriminatory surety requirements to ensure abandoned equipment can be removed.¹¹²

The Act establishes uniform rules with respect to applications to construct and place new towers.¹¹³ In general, the Act requires state and local entities to review and make a final decision regarding these applications within 150 calendar days after an application is received.¹¹⁴ If a state or local entity fails to act within that time frame, the application is deemed approved.¹¹⁵

The Act establishes uniform rules with respect to applications to place transmission equipment on wireless support structures and applications to substantially change existing towers or base stations.¹¹⁶ In general, the Act requires state and local entities to review and make a final decision regarding these applications within 90 calendar days after an application is received.¹¹⁷ If a state or local entity fails to act within that time frame, the application is deemed approved.¹¹⁸

The Act also prohibits state and local entities from restricting the siting of small wireless facilities.¹¹⁹ With limited exceptions, the Act provides a state or local entity is required to authorize the siting of a small wireless facility within its jurisdiction, without requiring a special or conditional land use permit, if the small wireless facility will be located in a public right-of-way; on a state or local authority structure located outside a public right-of-way if the structure is already in use as a wireless support structure; or on an existing tower, utility pole, or wireless support structure.¹²⁰

¹¹⁰ Iowa Code ch. 8C.

¹¹¹ Iowa Code §8C.3.

¹¹² Iowa Code §8C.3.

¹¹³ Iowa Code §8C.4.

¹¹⁴ Iowa Code §8C.4(4).

¹¹⁵ Iowa Code §8C.4(5).

¹¹⁶ Iowa Code §8C.5.

¹¹⁷ Iowa Code §8C.5(4).

¹¹⁸ Iowa Code §8C.5(5).

¹¹⁹ Iowa Code §8C.7A. For purposes of Iowa Code section 8C.7A, "siting" means "the mounting, installation, maintenance, modification, operation, or replacement of a small wireless facility on or adjacent to any of the following: (1) [a]n existing tower, utility pole, wireless support structure, or other existing structure[;] (2) [a] new utility pole of a similar height and appearance as an existing utility pole and which is located within a five-hundred-foot radius of the existing utility pole[; or] (3) [a] replacement utility pole of a similar height and appearance as an existing utility pole and which is located within a five-hundred-foot radius of the existing utility pole."

¹²⁰ Iowa Code §8C.7A(2).



XIII. Common Terminology and Concepts

- BPL (broadband over powerline) — Internet connectivity using existing electric power lines.¹²¹
- Broadband — Digital technologies that provide consumers a signal switched facility offering integrated access to voice, high-speed data service, video-demand services, and interactive delivery services at speeds meeting FCC requirements.¹²²
- Cellular Technology — Often used for all wireless phones regardless of the technology the wireless phones use; derives from cellular base stations that receive and transmit calls. Both cellular and PCS phones use cellular technology.¹²³
- Cramming — A practice in which customers are billed for enhanced features such as voice mail, caller ID, and call-waiting that they have not ordered.¹²⁴
- Cross-subsidization — Using services that are not subject to competition to subsidize competitive services, such as using joint facilities. Each joint facility should be allocated a reasonable share of the cost of the facility used to provide each service.
- DSL — Digital subscriber line services using a wireline transmission technology that brings data and information faster over copper telephone wires already installed in homes and businesses. Normally does not require consumers to dial an ISP and is continually connected to the Internet.¹²⁵
- FCC — Federal Communications Commission.
- Fiber Optic Technology (fiber) — Internet connectivity entirely through installed fiberoptic cables.¹²⁶
- ILEC (incumbent local exchange carrier) — Telephone companies that offered local exchange service in a particular community prior to the passage of the federal Telecommunications Act of 1996.¹²⁷
- Internet — The federated international system that is composed of allied electronic communications networks linked by telecommunications channels, that uses standardized protocols, and that facilitates electronic communications services, including but not limited to use of the world wide web; the transmission of electronic mail or messages; the transfer of files and data or other electronic information; and the transmission of voice, image, and video.¹²⁸

¹²¹Federal Communications Commission, Types of Broadband Connections (June 23, 2014), www.fcc.gov/general/types-broadband-connections (last visited Aug. 25, 2020).

¹²²Federal Communications Commission, Glossary of Telecommunications Terms (Jan. 28, 2014), www.fcc.gov/general/glossary-telecommunications-terms (last visited Aug. 25, 2020).

¹²³*Id.*

¹²⁴*Id.*

¹²⁵Federal Communications Commission, Types of Broadband Connections (June 23, 2014), www.fcc.gov/general/types-broadband-connections (last visited Aug. 25, 2020).

¹²⁶*Id.*

¹²⁷47 U.S.C. §251(h) (2018).

¹²⁸Iowa Code §4.1(9B).



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- InterLATA Service — Telecommunications between a point located in a local access and transport area and a point located outside such area.¹²⁹ Also known as long distance service.
- IntraLATA Service — Telecommunications between points located within a local access and transport area and may involve a toll charge. Also known as long distance service.¹³⁰
- ISP — Internet services provider.
- IXC (interexchange carriers) — Long distance companies that sell toll-free numbers, international data networking, and outgoing telephone service on an interexchange basis.
- LAN (local area network) — A group of data devices that can communicate with each other within a limited geographic area, such as a floor or department.
- Landline — Traditional wired telephone service.¹³¹
- LATA (local access and transport area) — A contiguous geographic area established by a Bell operating company before the enactment of the federal Telecommunications Act of 1996 or after the enactment and approved by the FCC.¹³²
- Local Exchange Carrier (or company) — Any person that is engaged in the provision of telephone exchange service or exchange access.¹³³
- PCS (personal communications services) — Mobile telephones using cellular technology operating in the 1900 MHz band spectrum.¹³⁴
- POTS — Plain old telephone service.
- Slamming — Occurs when a customer's long distance service is switched from one long distance company to another without the customer's permission. Such unauthorized switching violates FCC rules and Iowa Code section 476.103.¹³⁵
- Tariff — The documents filed by a local exchange carrier with the board describing its services and the payments to be charged for such services.¹³⁶
- Telecommunications — 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.¹³⁷ Generally includes local exchange services, long distance services, Internet access, broadcasting (television by cable or satellite, radio), and wireless services (cellular).

¹²⁹ 47 U.S.C. §153(26) (2018).

¹³⁰ Federal Communications Commission, Local, Local Toll, and Long Distance Calling (Dec. 31, 2019), www.fcc.gov/consumers/guides/local-local-toll-and-long-distance-calling (last visited Aug. 25, 2020).

¹³¹ Federal Communications Commission, Glossary of Telecommunications Terms (Jan. 28, 2014), www.fcc.gov/general/glossary-telecommunications-terms (last visited Aug. 25, 2020).

¹³² 47 U.S.C. §153(31) (2018).

¹³³ 47 U.S.C. §153(32) (2018).

¹³⁴ Federal Communications Commission, Glossary of Telecommunications Terms (Jan. 28, 2014), www.fcc.gov/general/glossary-telecommunications-terms (last visited Aug. 25, 2020).

¹³⁵ Id.

¹³⁶ Id.

¹³⁷ 47 U.S.C. §153(50) (2018).



- Telephone Exchange Service — Service within a telephone exchange, or within a connected system of telephone exchanges within the same exchange area operated to furnish to subscribers intercommunicating service of the character ordinarily furnished by a single exchange, and which is covered by the exchange service charge, or comparable service provided through a system of switches, transmission equipment, or other facilities (or combination thereof) by which a subscriber can originate and terminate a telecommunications service.¹³⁸
- Universal Service — The financial mechanism which helps compensate telephone companies or other communications entities for providing access to telecommunications services at reasonable and affordable rates throughout the country, including rural, insular, and high-cost areas, and to public institutions. Companies, not consumers, are required by law to contribute to this fund and may pass this charge on to customers.¹³⁹
- VoIP (voice over Internet protocol) — Method of sending voice calls over the Internet or similar broadband network as data using a phone adapter or computer.¹⁴⁰
- WiFi — Wireless Internet networking creating “hotspots” of Internet connectivity. Has a limited range of a few hundred feet.
- WiMax — Wireless Internet technology that provides connectivity speeds faster than DSL and is available at distances up to 30 miles, depending on conditions.¹⁴¹

¹³⁸ 47 U.S.C. §153(54) (2018).

¹³⁹ Federal Communications Commission, Glossary of Telecommunications Terms (Jan. 28, 2014), www.fcc.gov/general/glossary-telecommunications-terms (last visited Aug. 26, 2020).

¹⁴⁰ Federal Communications Commission, Voice Over Internet Protocol (VoIP), www.fcc.gov/general/voice-over-internet-protocol-voip (last visited Aug. 25, 2020).

¹⁴¹ Marshall Brain & Ed Grabianowski, How WiMax Works, HowStuffWorks, computer.howstuffworks.com/wimax.htm# (last visited Aug. 26, 2020).