

APPENDIX C

GLOSSARY¹

Accelerometer—An electromechanical device that measures acceleration forces or motion.

Advanced Metering Infrastructure (AMI)—Digital two-way communications hardware and software between smart meters and utility systems which can transmit energy usage, price, and control signals.

Air interface—The technical protocol that ensures compatibility between mobile radio service equipment, such as handsets, and the service provider's base stations.

Ancillary Terrestrial Component (ATC)—A ground-based infrastructure in a mobile satellite system to enhance the coverage of the satellite network.

Backhaul—The telecommunications link used to transport traffic from a geographically distant point, such as a wireless base station, to a significant aggregation point in the network, such as a mobile telephone switching office or Internet peering point.

Bluetooth—An industry standard using unlicensed radio frequency spectrum for wireless connectivity over short distances to link computers, wireless handsets, and other devices.

CableCARD—A credit card-sized device that contains the video provider's security information. When this card is plugged into a set-top box, it enables customers to access the video programming and services to which they have subscribed.

Carrier of last resort—The carrier that commits (or is required by law) to provide service to any customer in a service area that requests it, even if serving that customer would not be economically viable at prevailing rates.

Census block—The smallest geographic unit for which the Census Bureau collects and tabulates decennial census data.

Census tract—A small, relatively permanent statistical subdivision of a county, designed to contain roughly 1,000 to 8,000 people who are relatively homogeneous with respect to their demographics, economic status and living conditions.

Churn—The number of customers who leave a service provider over a given period of time, usually expressed as a percentage of total customers.

Commercial Mobile Alert System—A system established by the Commission that allows wireless service providers choosing to participate to send emergency alerts as text messages to their subscribers.

Commercial Mobile Radio Service—A mobile communications service that is provided for profit and makes interconnected service available to the public, usually in the form of mobile phone service.

Common carrier—A telecommunications provider, such as a telephone company, that offers its services for a fee to the public indiscriminately.

Competitive Local Exchange Carrier—A company that offers local telephone service in competition with the legacy telephone company.

Conditional access—Encrypting digital television services (e.g. premium channels) to limit access to authorized users.

Credentialing (or certification)—The process of establishing the qualifications of licensed professionals (e.g. physicians and teachers), organizational members, or organizations, and assessing their background and legitimacy.

Dark fiber—A fiber optic cable that is laid and ready for use, but for which the service provider has not provided modulating electronics; usually contrasted to lit fiber, which is fiber optic cable in use to provide wired communications.

Data Over Cable Service Interface Specification (DOCSIS)—A standard for the transmission of data over a cable network.

Emergency Alert System (EAS)—A national public warning system that requires broadcasters, cable television systems, wireless cable systems, satellite digital audio radio service (SDARS) providers, and direct broadcast satellite (DBS) providers to provide the communications capability to the President to address the American public during a national emergency. The system also may be used by state and local authorities to deliver important emergency information, such as AMBER alerts and weather information targeted to specific areas.

Encumbered—Spectrum that is burdened with occupancy, usage or congestion limitations or licenses that are subject to obligations or restrictions.

¹ The National Broadband Plan provides this glossary solely as a reader aid. These definitions do not necessarily represent the views of the FCC or the United States Government on past, present, or future technology, policy, or law and thus have no interpretive or precedential value.

Ethernet—A type of digital transmission service. Traditionally, Ethernet operates at 10 megabits per second (Mbps) (also known as 10-Base-T), although 100-Base-T (100 Mbps) and Gigabit (1,000 Mbps) Ethernet are also available.

Extension arm—A support arm that extends from a telephone pole to hold communications lines at the same level as existing lines which are attached to the pole.

Gateway device—A network device that acts as an entrance to another network and often is used to connect two otherwise incompatible networks.

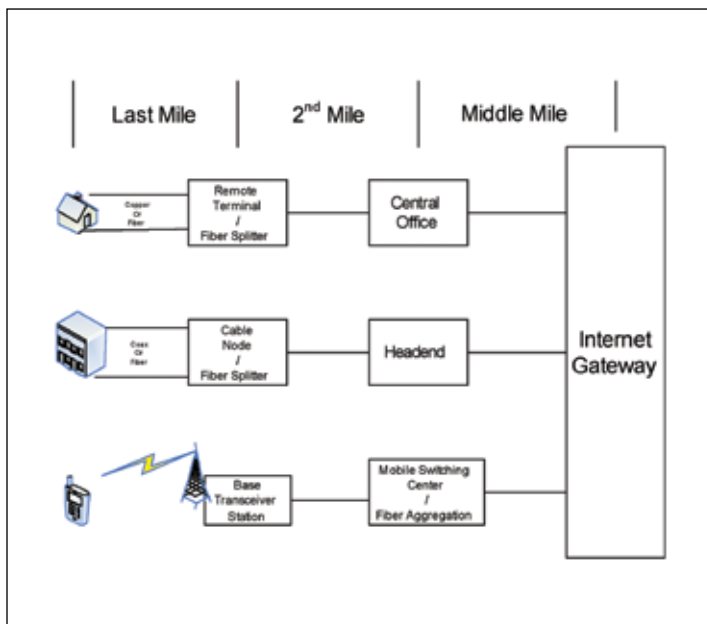
Grid computing—The linking of two or more computers in a way that allows efficient use of available resources. For example, grid computing could store a single database across multiple servers to allow efficient use of unused storage and parallel processing of database queries.

Independent System Operator (ISO)—An organization that coordinates, controls, and monitors the operation of the electrical power system, either within a single state or across multiple states.

Information service—The offering of a capability for generating, acquiring, storing, transforming, processing, retrieving, utilizing, or making available information via telecommunications.

Intelligent Transportation System (ITS)—A broad range of advanced communications technologies that, when integrated into transportation infrastructure and vehicles, relieves congestion, improves safety, and mitigates environmental impact.

Internet gateway—The closest peering point between a broadband provider and the public Internet for a given consumer connection. See diagram below.



Linear channel—Video content that is delivered in a scheduled mode, such as through broadcast or cable network channels. Internet video (and other platforms such as Video On Demand, or VOD), on the other hand, delivers content upon request and often with pause/rewind/fast-forward capability.

Loop—The connection from the network central office to the customers' premises.

Microcell—Cell sites with extremely limited, but targeted, coverage. Microcells may provide indoor coverage in skyscrapers or may be placed in fire trucks, police cars and ambulances.

Mobile Earth Station—An earth station in the mobile-satellite service intended to be used while in motion or during halts at unspecified points.

Modem—A piece of customer premise equipment typically managed by a broadband provider as the last connection point to the managed network.

Multicast—Simultaneous transmission of information/data to multiple recipients.

Multichannel Video Programming Distributor (MVPD)—An entity that makes available for purchase, by subscribers or customers, multiple channels of video programming.

Multi-Frequency Network (MFN)—A network in which multiple stations consolidate their capacity and broadcast over different channels at different sites and times, similar to a frequency re-use pattern employed by mobile operators to avoid interference between cell sites.

Must-carry—A requirement that cable operators cablecast the broadcast signals of local commercial television stations that request carriage.

Near-Field communications device—A short-range high frequency wireless communication technology which enables simple two-way data interactions between devices.

Next Generation 911 (NG911)—An emergency response system that integrates the core functionalities of the E911 system and also supports multimedia communications (such as texting, e-mail, and video) to the PSAP and to emergency personnel on the ground.

Notice of Inquiry—A proceeding initiated by a federal agency to gather facts and public comment on an issue within the responsibility of the agency, which may lead to a Notice of Proposed Rulemaking.

Notice of Proposed Rulemaking (NPRM)—A notice containing a proposal for adoption of new rules. The Administrative Procedure Act (APA) requires that an agency, before

promulgating a binding rule, must publish general notice of its proposal in the Federal Register.

Offload—Shifting telecommunications traffic from one network to another to relieve network congestion.

Open source—A software development model by which the source code to a computer program is made available publicly under a license that gives users the right to modify and redistribute the program.

Out-of-band emission (OOBE)—Any frequency outside of the frequency ranges covered by the adjacent channel power tables found in section 27.53 of the Commission's rules.

Over-builder—A facilities-based provider of cable service, telecommunications, or broadband that builds in an area already served by another facilities-based provider.

Overlay auction—An auction for licenses to unused portions of the spectrum already assigned to incumbent users.

Payload capacity—The amount of throughput possible using a given technology at certain specifications.

Penetration—The homes that are connected to a network, usually provided as a percentage of homes passed.

Point of Presence—A physical location where a communications carrier allows other carriers to access its network.

Pole attachment—Any attachment by a cable television system or provider of communications service to a pole, duct, conduit, or right-of-way owned or controlled by a utility.

Private Branch Exchange—Privately owned switch. A commercial building may have a PBX to route calls within the building.

Privileging—The process health care organizations (predominantly hospitals) employ to authorize practitioners to provide specific services and procedures for their patients.

Protocol stack—The ordered set of protocol types used in communications networks. At the lowest level, the protocol defines the physical interaction of the network components; at the highest level, the protocol defines the applications interacting with users. A protocol stack is designed so that protocols in each layer of the stack are substitutable for each other without affecting protocols higher up the stack.

Public Safety Answering Point (PSAP)—A call center responsible for answering emergency calls and dispatching emergency services.

Public Switched Telephone Network (PSTN)—The legacy circuit-switched telephone network.

Radiodetermination—The determination of the position, velocity or other characteristics of an object, or the obtaining of information relating to these parameters, by means of the propagation of radio waves.

Reband—To reconfigure the assignment of spectrum licenses regarding either who controls the license or how a licensee may use its spectrum.

Remote patient monitoring—Using devices and communications networks to remotely collect and send diagnostic data to a monitoring station for interpretation. For example, measuring blood pressure when a patient is at home.

Right-of-way—The right to pass over or occupy a particular piece of land. For example, utilities generally receive rights-of-way from municipalities to erect and wire poles to carry electricity, telecommunications services, and cable service.

Secondary market (for spectrum)—A mechanism for re-portioning allocated spectrum based on economic demand. The secondary market for spectrum enables licensees to lease their spectrum to third parties, which permits spectrum to flow more freely among users to the extent consistent with the Commission's public interest objectives.

Service Level Agreement (SLA)—An agreement between a user and a service provider defining the nature of the service provided and establishing metrics for that service, trouble reporting procedures and penalties if the service provider fails to perform.

Set-top box—A stand-alone device that receives and decodes programming so that it may be displayed on a television. Set-top boxes may be used to receive broadcast, cable, and satellite programming.

Side lobe—Distribution of microwave energy outside the main beam. Side lobes are measured in both the horizontal (E-plane) and the vertical (H-plane) directions. Normally, the E-plane has higher sidelobes, i.e., more energy distributed outside the main beam.

Single Frequency Network (SFN)—A network used in distributed transmission and differing from a cellular telephone system by using the same frequency in all adjacent cells.

Smart Grid—The electric delivery network, from electrical generation to end-use customer, integrated with sensors, software, and two-way communications technologies to improve grid reliability, security, and efficiency.

Smart meter—A digital meter (typically electric) located on the customer premises that records energy usage and has two-way communications capabilities with utility systems.

Spatial reuse—An efficiency measure that allows use of the same spectral link at the same time.

Subscriber Line Charge (SLC)—A federally regulated monthly service charge assessed by telephone companies to pay for a portion of the local telephone wires, poles and other facilities used to connect a local telephone exchange.

Substantially Underserved Trust Area—A community on land held in trust by the United States for Native Americans (or on certain other trust lands), which the Secretary of the Interior has determined has a high need for the benefits of certain federal programs.

Sufferance basis—The use of spectrum with no legal claim to tenancy. Using spectrum on a sufferance basis means that the use is subject to preemption at any time by the licensee.

Switched Digital Video (SDV)—A method of delivering video programming to subscribers in a given area only when at least one subscriber in that area actively requests that programming.

Switching—The process of connecting the transmission path that allows the calling party to connect to the called party.

Table of Allotments—A list of which television stations may broadcast a digital or analog signal over a given band of spectrum in a given community. The tables may be found in sections 73.606(b) and 73.622(b) of the Commission's rules.

Telecommunications Relay Service (TRS)—A telephone service that enables persons with TTYs, individuals who use sign language and people who have speech and hearing disabilities to use telephone services by having a third party transmit and translate a call. Consumers can access these services by using, for example, video phones, computers, web-enabled devices, captioned telephones, and TTYs.

Teletype or telephone typewriter—A type of machine that allows people with hearing or speech disabilities to communicate over the phone using a keyboard and a viewing screen.

Transcoding—The process of directly converting a digital media file or object from one format to another allowing one to view media that is otherwise not supported by his/her device.

Transport—The transmission facilities between the wire center or switch of an incumbent local exchange carrier and the wire center or switch of another carrier.

Use case—In software engineering and systems analysis, a methodology used to identify, clarify, and organize system requirements as it responds to a request that originates from outside of that system.

Video description—The insertion of audio-narrated descriptions of a television program's key visual elements into natural pauses between the program's dialogue so that the critical details of the information are accessible to persons with visual disabilities.

Video navigation device—A piece of equipment used by consumers within their premises to receive multichannel video programming and other services offered over multichannel video programming systems Converter boxes, interactive equipment, and other.

Wireless Priority Service (WPS)—A federal program that authorizes cellular communications service providers to prioritize calls over wireless networks. Participating service providers typically deploy WPS in stages until service is available in most coverage areas and functionality has reached full operating capability.