PROVIDENCE CITY, UTAH

Related Fiber Network Definitions

Fiber-optic Cable	A glass cable that uses light waves to transmit data that consists of a fiber bundle or single fiber, strength members, and a cable jacket.
Open Access Network	An open-access network (OAN) separates the physical access to the network from the delivery of services. In an OAN, the owner or manager of the network does not supply services for the network; these services must be supplied by separate retail/content (ISP) service providers.
Utility Model	A business model whereby a city installs, operates and maintains a physical fiber network that is connected to all city addresses and all residents pay a minimum “utility” charge.
Subscription Model	A business model that installs fiber trunk lines to every city street, but only connects and charges those addresses that “subscribe” to the network.
Active Ethernet	An Active Ethernet network has a direct point to point connection that provides a dedicated link from the network to the subscriber.
PON/GPON	Passive Optical Network (PON) is a point-to-multipoint access network. Its main characteristic is the use of passive splitters in the fiber distribution network, enabling one single feeding fiber from the provider to serve multiple homes and small businesses. GPON is Gigabit Passive Optical Network.
Aerial Installation	Installation of cable above ground on existing power company poles.
Inground Installation	Underground installation of fiber conduit and cable.
Service Drops	A connection to a customer facility from the network cabinet.
Take-rate	The percentage of subscribers out of the total number of available service addresses.
Micro-Trenching	Micro-trenching is an installation method in which a narrow and relatively shallow trench is cut, usually on an asphalt roadway. Trench dimensions can range from .75 to 2.24 inches wide and 8 to 16 inches deep.
Nano-Trenching	A shallower trenching method than micro trenching; google fiber used this in some locations and cable was popping out of the asphalt.

Directional Drilling	Directional drilling (HDD), is a minimal impact trenchless method of installing underground utilities that offers significant environmental advantages over traditional cut and cover pipeline/utility installations. The technique is routinely used when conventional trenching or excavation is not practical or when minimal surface disturbance is required.
Missile Boring	Missile boring, also known as horizontal boring, underground pneumatic boring, or impact boring is a method of point to point underground boring. Missile boring has been utilized as a standard for installation of public utilities.
Pedestal	A telecommunications pedestal is a ground-level housing for a connection point for underground cables. Pedestals are used for CATV (known as a cable box in such a situation), telephone, PONS, and other telecommunications systems.
Franchise taxes	The term franchise tax refers to a tax paid by certain enterprises that want to do business in a government jurisdiction.
Backbone	A backbone interconnects and ties together diverse network locations together located at different geographical locations.
Ring Topology	In a ring network, every device has exactly two neighboring devices for communication purposes. It is called a ring topology as its formation is like a ring.
Star Topology	In a star topology there exists a point-to-point connection between a node and hub device. The hub device takes a signal from any node and passes it to all the other nodes in the network. The hub works as a server and it controls and manages the entire function of the network.
Symmetrical Connections	In a symmetrical internet connection, the upload and download speeds are the same.
Cabinet, Shed, Hut	An enclosure that houses electrical equipment.
Hub	A hub is a basic networking device that connects multiple computers or other network devices together. Unlike a network switch or router, a network hub has no routing tables or intelligence on where to send information and broadcasts all network data across each connection. Sometimes the term hub is also used to indicate a location where various interconnections occur physically in a star topology.
Churn / Replacement	Churn is customer turnover. Replacement is making up for lost customer business.
Main Line / Trunk Line	The primary fiber backbone or line from which feeder lines are split off.
Feeder Line	A feeder line is a peripheral route or branch in a network, which connects smaller or more remote nodes with a route or branch carrying heavier traffic.

Infrastructure Fee	A fee charged to pay for the cost of network infrastructure.
Network Refresh Fee	A fee paid to cover the cost of replacing equipment that fails, needs repair or becomes obsolete.
Network Operator Fee	A fee paid to the contractor that oversees and manages the network.
Internet Service Provider Fee	A fee charged by an Internet Service Provider (ISP) for content including an internet connection, phone service and programming.
Total Retail Fee	The total amount charged to the customer including the Infrastructure Fee, the Network Operator Fee, the Network Refresh Fee, and the Internet Service Provider Fee.
Internet Service Provider (ISP)	An Internet service provider (ISP) is a company that provides customers with Internet access, often referred to as “the provider.” Services, such as telephone and television services, or personal websites or home pages may be provided. The services and service combinations may be unique to each ISP.
Content Provider	An ISP that typically provides connection to Internet services.
Landline	A phone connection via a wired network as opposed to a wireless connection such as cell service.
Megabit (Mb), Gigabit (Gb)	Megabit = 1,000,000 one million bits; Gigabyte 1,000,000,000 one billion bits, a thousand times more than a megabit. Bit = a unit of computer information or data-storage capacity that consists of a one or a zero. A byte is made up of 8-bits and therefore a megabyte and gigabyte are 8 times larger than a megabit and gigabit respectively.
Megabits per Second (Mbps), Gigabits per Second (Gbps)	Common data-rate metrics which express the number of bits per second sent across a network [see also Megabit (Mb), Gigabit (Gb) above].
UTOPIA/UIA	A fiber network service in Utah started about 15 years ago that serves about a dozen cities. UTOPIA offers a turn-key service at no cost to a city government as long as a certain threshold number of subscribers is achieved.
Network Operations Center	A network operations center, or NOC (pronounced “knock”), is a centralized location where IT technicians directly support the efforts of remote monitoring and management (RMM) software.
Telemetry	Telemetry, in general, is a term for technologies that accommodate collecting information in the form of measurements or statistical data, and forward it to IT systems in a remote location.
Broadband	Broadband is data transmission that transports multiple signals and traffic types. The medium can be coaxial cable, optical fiber, radio or twisted pair. In the context of Internet access, broadband is used to mean any high-speed Internet access that is always on and faster than dial-up access.

FTTP	Fiber To The Premises (FTTP) is a fiber optic cable delivery medium that provides Internet access directly to a user or groups of users from an Internet service provider (ISP).
Public Private Partnership (PPP)	A public-private partnership is a cooperative arrangement between two or more public and private sectors, typically of a long-term nature. In other words, it involves government and business that work together to complete a project and/or to provide services to residents.
5G/Wifi Small Cells	Small cells are low power, short range wireless transmission systems (base stations) to cover a small geographical area or indoor / outdoor applications.
Smart City Initiatives	A smart city initiative uses different types of electronic sensors to collect data. Insights gained from that data are used to manage assets, resources and services efficiently; in return, that data is used to improve the operations across the city. This includes data collected from citizens, devices, buildings and assets that is then processed and analyzed to monitor and manage traffic and transportation systems utilities, water supply networks, waste, crime detection, information systems, schools, and other community services.
Redundant Network	Redundancy is the installation of additional or alternate network devices or equipment to ensure availability in the case of device or path failure to avoid an extended outage. A ring topology is redundant by nature because two paths exist to a given interface.
Backhaul	A backhaul is the communication and network infrastructure responsible for transporting communication data from end users or nodes to the central network or infrastructure and vice versa. It is the intermediate communication infrastructure that connects smaller networks with the backbone or the primary network.