Tech Terms Glossary

Midco® is not only your partner in technology. We're your partner in understanding complex terms. Use this glossary as a reference for your technology terminology definitions. Then, we'll work with you to determine what technology can best help your organization's unique needs to stay connected, secure and moving onward and upward.

CPE: Customer Premises Equipment
CPE is equipment located on the customer's premises (physical location) rather than on the provider's premises or somewhere in between. Almost any end-user equipment can be called customer premises equipment – and it can be owned by the customer or by the provider.[1]

Direct Fiber
Direct fiber utilizes Midco network connections from a point of presence (PoP) to the customer location and can provide very high bandwidth. The result is a network service with the best possible performance characteristics. Latency (delay), jitter (variances in delay), and data delivery rates are great with direct fiber delivery.

E-Line, E-LAN and E-Access
E-Line and E-LAN are services used to interconnet two or more locations together. E-Access is used to provide a local access connection to another carrier's network.

– E-Line connects two locations.

– E-LAN connects three or more.

– E-Access connects one location to another carrier's network through a NNI.

EVC: Ethernet Virtual Connection
EVCs define a Layer 2 bridging architecture that supports Ethernet services. An EVC is defined by the Metro Ethernet Forum (MEF) as an association between two or more user network interfaces that identifies a point-to-point or multipoint-to-multipoint path within the service provider network.[2]

FTTP: Fiber to the Premises
FTTP means the connection is 100% fiber-optic cable all the way from the nearest network connection to the customer's building or location.

Headend
A headend is a regional point of presence where all of the fiber, servers and WAN connections converge.[3]

ILECs: Incumbent Local Exchange Carriers
ILEC is the former Bell System or Independent Telephone Company responsible for providing local telephone exchange services in a specified geographic area. When referring to the technical communities, ILEC is often used just to mean a telephone provider.

IoT: Internet of Things
The IoT is the concept of connecting any device to the internet or to each other. This includes everything from cellphones, coffee makers, washing machines, headphones, wearable devices and more.[4]

IPv4 and IPv6
IP addresses are distributed to service providers in bundles of numbers, and service providers assign these numbers to their customers. The numbering scheme currently used for IP addresses is called IPv4 which has a finite number of combinations, very similar to telephone numbers. The final bundle of IP addresses with the last available combination of numbers was distributed earlier this year which means that we need to transition to a new scheme with more number combinations, and this is called IPv6.

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LAN: Local Area Network
A LAN is a collection of devices connected together in one physical location, such as a building, office or home. A LAN can be small or large, ranging from a home network with one user to an enterprise network with thousands of users and devices in an office or school.[2]

LATA: Local Access and Transport Area
This is a geographic area assigned by the federal government at the time of divestiture. A LATA border does not necessarily follow a state or county boundary.

MEF: Metro Ethernet Forum
MEF is driving development of a global federation of network, cloud and technology providers supporting dynamic, assured and certified network services that power enterprise digital transformation.[5]

MPLS: Multiprotocol Label Switching
MPLS builds intelligent networks that deliver a wide variety of advanced, value-added services over a single infrastructure. This economical solution can be integrated seamlessly over any existing infrastructure, such as Ethernet. Subscribers with differing access links can be aggregated on an MPLS edge without changing their current environments, as MPLS is independent of access technologies.

Node
A node is a fiber transition and concentration point. This is where last mile connections branch out to customers, creating a central or connecting point between them.

NTP: Network Time Protocol
NTP is a protocol designed to time-synchronize a network of machines. An NTP network usually gets its time from an authoritative time source such as a radio clock or an atomic clock attached to a time server. NTP then distributes this time across the network. NTP is extremely efficient; no more than one packet per minute is necessary to synchronize two machines to the accuracy of within a millisecond of one another.[2]

Open Systems Interconnections (OSI) Model
Just like a popular dip, there are seven layers of networking as defined by the OSI model, first developed in 1984.[6] Midco mainly focuses on Layer 1 – Physical, Layer 2 – Data Link and Layer 3 – Network.

PON: Passive Optical Network
PON solutions cost-effectively deliver fiber directly to a location and its users by relying on multiple wavelengths, each capable of providing the required bandwidth to the end user. PON services rely on an all-fiber connection – ultimately delivering higher upload bandwidth, allowing for equal download and upload speeds.

– **EPON: Ethernet PON**
  EPON is Ethernet-only based fiber network architecture, and it's Midco technology of choice. Standards have been published to allow speeds up to 50 Gbps. EPON is also referred to as Gigabit Ethernet PON or GEPON.[7]

– **GPON: Gigabit PON**
  GPON is similar to EPON, but allows for a wider variety of legacy network protocols beyond Ethernet.

PoP: Point of Presence
PoP is a point of exchange for data, such as a Midco headend.

QoS: Quality of Service
QoS is measurement of the overall performance of a service, as seen by the users.

Remote PHY
This is a cost-effective means to distribute network processing power closer to the customer hybrid-fiber networks.

SIP: Session Initiation Protocol
SIP phone lines take advantage of voice over internet protocol (VoIP) – meaning your phone conversations are converted to data that's sent over the IP network, all while maintaining call quality. If you need to scale your lines, SIP also provides more flexibility than T1 technology.

SLA: Service Level Agreement
A SLA is a contract that binds a service provider and a customer together, while outlining quality, availability and responsibilities.

VPN: Virtual Private Network
A VPN is an encrypted connection that enables users to send and receive data across shared or public networks. A VPN connection helps ensure that sensitive data is safely transmitted - and provides users the functionality of the private network.[2]

VRF: Virtual Route Forwarding
VRF is a private Layer 3 VPN (L3VPN) that is built on an MPLS network. Many large Midco customers rely on our VRF services for their critical office connectivity, including regional health care providers. It provides a highly scalable WAN with advanced routing and QoS capabilities.

WAN: Wide Area Network
A WAN is a data communications network that covers a relatively broad geographic area and often uses transmission facilities provided by common carriers, such as telephone companies.

– **SD-WAN: Software-Defined Wide Area Network**
SD-WAN enables private WAN services over most network services, including private and public networks. VPN technology is used to secure the traffic between the endpoints.

Wireless LNP: Wireless Local Number Portability
Wireless LNP allows consumers to switch from one wireless carrier to another within the same general metropolitan area. Wireless LNP also allows consumers to move a phone number from a wireline phone to a wireless phone in some cases.[8]

Are you thinking about how to structure – or are you restructuring – your IT resources?

A Midco account executive is ready to discuss your needs and assist in designing an IT strategy that complements both your network and infrastructure needs.

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