Glossary of 100 Networking Terms

Term	Definition
3G	Third generation of mobile telecommunications technology, typically offering higher data rates than earlier generations.
4G	Fourth generation of mobile telecommunications technology, typically offering even higher data rates than 3G.
5G	Fifth generation of mobile telecommunications technology, offering faster speeds and higher bandwidth than 4G.
Access Control List (ACL)	A set of rules that controls traffic in and out of a network or individual device.
Address	Unique identifier for a specific computer or device on a network.
Address Resolution Protocol (ARP)	Protocol for mapping an Internet Protocol address (IP address) to a physical machine address that is recognized in the local network.
Administrator	User with full control over a network or individual computer.
Address Resolution Protocol (ARP)	Protocol used to map an IP address to a physical address, such as a MAC address.
Advanced Encryption Standard (AES)	Symmetric key algorithm used to encrypt and decrypt data.
Amazon Web Services (AWS)	Comprehensive, evolving cloud computing platform provided by Amazon.
Apache	Popular open-source web server.
Application Programming Interface (API)	Specific method prescribed by a computer software program for requesting services from another software program.
Asynchronous Transfer Mode (ATM)	Cell-based switching technique for voice, video, and computer data.
Auto Scaling	Cloud computing feature that provides the ability to scale an application up or down automatically according to conditions set by the user.
Bandwidth	Amount of data that can be transferred over a given period of time.
Bit	Smallest unit of data in a computer.
Bridge	Device that connects two or more networks together.
Broadcast	Message sent to all devices on a network.
Client	Device or software application that requests services from a server.
Cloud	Network of remote servers hosted on the internet and used to store, manage, and process data.
Cloud Computing	Ability to access applications and data over the internet.
Cluster	Group of computers that work together to provide high availability.
Code	Set of instructions that a computer can understand.
Collision	Condition that occurs when two devices on a network attempt to transmit at the same time.
Compiler	Program that converts code into a form that a computer can execute.

Crossover Cable	Type of Ethernet cable used to connect two devices of the same type, such as two computers.
Data Center	Facility used to house networking equipment and other computer systems.
Data Encryption Standard (DES)	Standard for encrypting data that was developed by the U.S. National Institute of Standards and Technology (NIST).
Data Link Layer	Second layer of the OSI model, which is responsible for error-free transfer of data frames from one node to another.
Data Mining	Process of extracting patterns from large data sets.
Database	Collection of data that can be accessed by computers.
Database Server	Server that stores and manages data in a database.
Dedicated Line	Physical connection between two devices that is not shared with any other devices.
Denial of Service (DoS)	Attack that prevents legitimate users from accessing a network or individual device.
Developer	Programmer who writes code to create software applications.
Dial-up	Type of internet connection that uses a telephone line.
Domain Name System (DNS)	System that converts human-readable domain names into numerical IP addresses.
Dynamic Host Configuration Protocol (DHCP)	Protocol for automatically assigning IP addresses to devices on a network.
Encryption	Process of converting data into a form that cannot be read by unauthorized individuals.
Ethernet	Popular type of physical network that uses twisted pair or fiber optic cables to connect devices.
Extranet	Private network that uses the public internet to securely connect two or more locations.
File Transfer Protocol (FTP)	Protocol used to transfer files from one computer to another over a network.
Firewall	Device or software application that filters traffic between two networks or between a device and a network.
Firmware	Software that is stored in a computer's read-only memory (ROM).
Gateway	Device that connects two networks with different protocols or two devices with different interfaces.
Gigabit Ethernet	Ethernet standard with a data transfer rate of one gigabit per second.
Hub	Device that connects multiple network devices together.
Hypertext Transfer Protocol (HTTP)	Protocol used to transfer web pages and other files on the World Wide Web.
Hypertext Transfer Protocol Secure (HTTPS)	Secure version of HTTP that is used to transfer sensitive data, such as credit card numbers.
IGMP (Internet Group Management Protocol)	Protocol used to manage multicast group membership.
Infrastructure as a Service (IaaS)	Form of cloud computing that delivers computer infrastructure on an as-a-service basis.
Intrusion Detection System (IDS)	System that monitors network traffic for signs of malicious activity.

Input	Data or instructions that are entered into a computer.
JavaScript	Programming language that is used to create interactive web pages.
Jitter	Variation in delay between data packets sent across a network.
LAN (Local Area Network)	Network that is confined to a relatively small area.
Leased Line	Point-to-point link between two devices in which each device has a dedicated connection to the other.
Internet Protocol version 4 (IPv4)	Previous version of the Internet Protocol (IP), which is being replaced by IPv6.
Internet Protocol version 6 (IPv6)	Latest version of the Internet Protocol (IP), which is the protocol used to route data on the internet.
Internet Service Provider (ISP)	Company that provides access to the internet.
IP Address	Unique identifier for a device on a network.
Malware	Short for "malicious software," it is any software designed to harm a computer or its user.
Modem	Device that converts digital signals to analog signals and vice versa.
Multicast	Message sent to a group of devices on a network.
NAT (Network Address Translation)	Technique used to allow devices on a private network to communicate with devices on a public network.
Netmask	Value used to specify which portion of an IP address represents the network and which portion represents the host.
Network	Group of two or more devices that are connected.
Network Interface Card (NIC)	Device that connects a computer to a network.
Network as a Service (NaaS)	Form of cloud computing that delivers network infrastructure as a service.
Open system interconnection model (OSI model)	Framework for understanding how data is transmitted between two nodes on a network.
Packet	Unit of data that is sent over a network.
Peer-to-Peer Architecture	Network architecture in which each computer or process on the network can act as both a client and a server.
Platform as a Service (PaaS)	Form of cloud computing that delivers a computing platform and/or solution stack as a service.
Protocol	Set of rules that govern communication between devices on a network.
Router	Device that forwards packets between networks or between devices on the same network.
Secure Sockets Layer (SSL)	Protocol for securing data transfer over the internet.
Server	Device or software application that provides services to other devices or software applications.
Service Pack	Collection of updates and fixes for a software program.

Simple Mail Transfer Protocol (SMTP)	Protocol used to send email.
Software as a Service (SaaS)	Form of cloud computing that delivers software as a service.
Spyware	Type of malware that gathers information about a user without their knowledge.
Structured Query Language (SQL)	Standard language for accessing and manipulating databases.
Subnet	Portion of a network that is isolated from the rest of the network.
Switch	Device that connects multiple devices together on a network and forwards packets between them.
Transmission Control Protocol (TCP)	Protocol used to transfer data over a network.
Trojan Horse	Type of malware that masquerades as legitimate software in order to trick users into installing it.
Unicast	Message sent to a single destination on a network.
User Datagram Protocol (UDP)	Protocol used to transfer data over a network.
Virtual Private Network (VPN)	Technique used to create a secure connection between two or more devices over a public network.
Virtual Machine (VM)	Software program that emulates the hardware of a computer.
Voice over IP (VoIP)	Technique used to transmit voice traffic over a data network.
Wide Area Network (WAN)	Network that covers a large geographical area.
Wireless Access Point (WAP)	Device that connects wireless devices to a wired network.
Wired Equivalent Privacy (WEP)	Security protocol for wireless networks.
Wi-Fi Protected Access (WPA)	Security protocol for wireless networks. It's an improvement over WEP and is required for networks that use 802.11n.
Worm	Type of malware that replicates itself and spreads to other computers on a network.
Zero Configuration Networking	Set of technologies that automatically configures IP addresses and other network settings without user intervention.
Zombie	Computer that has been infected with a virus and can be controlled by a remote attacker.
Zone	Logical grouping of network resources. Zones can be used to segment a network for security or performance reasons.
Zone Transfer	Process of copying DNS zone information from one DNS server to another.