Glossary of 100 Networking Terms



| Term | Definition |
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| 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. |
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| Crossover Cable | Type of Ethernet cable used to connect two devices of the same type, such as two computers. |
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| 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. |
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| 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. |
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| 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. |