**DSCP**

A Differentiated Services Code Point (DSCP) is a packet header value that can be used to request (for example) high priority or best effort delivery for traffic. Session-Based DSCP Classification allows you to both honor DSCP values for incoming traffic and to mark a session with a DSCP value as session traffic exits the firewall. This enables all inbound and outbound traffic for a session can receive continuous QoS treatment as it flows through your network. For example, inbound return traffic from an external server can now be treated with the same QoS priority that the firewall initially enforced for the outbound flow based on the DSCP value the firewall detected at the beginning of the session. Network devices between the firewall and end user will also then enforce the same priority for the return traffic (and any other outbound or inbound traffic for the session).

Different types of DSCP markings indicate different levels of service:

Completing this step enables the firewall to mark traffic with the same DSCP value that was detected at the beginning of a session (in this example, the firewall would mark return traffic with the DSCP AF11 value). While configuring QoS allows you to shape traffic as it egresses the firewall, enabling this option in a security rule allows the other network devices intermediate to the firewall and the client to continue to enforce priority for DSCP marked traffic.

* **Expedited Forwarding (EF)**

: Can be used to request low loss, low latency and guaranteed bandwidth for traffic. Packets with EF codepoint values are typically guaranteed highest priority delivery.

* **Assured Forwarding (AF)**

: Can be used to provide reliable delivery for applications. Packets with AF codepoint indicate a request for the traffic to receive higher priority treatment than best effort service provides (though packets with an EF codepoint will continue to take precedence over those with an AF codepoint).

* **Class Selector (CS)**

: Can be used to provide backward compatibility with network devices that use the IP precedence field to mark priority traffic.

* **IP Precedence (ToS)**

: Can be used by legacy network devices to mark priority traffic (the IP Precedence header field was used to indicate the priority for a packet before the introduction of the DSCP classification).

* **Custom Codepoint**

: Create a custom codepoint to match to traffic by entering a

**Codepoint Name**

 and

**Binary Value**

.

**QUORA**

Quora is an American question-and-answer website where questions are asked, answered, and edited by Internet users, either factually or in the form of opinions.

**FireWall**

In computing, a firewall is a network security system that monitors and controls incoming and outgoing network traffic based on predetermined security rules. A firewall typically establishes a barrier between a trusted internal network and untrusted external network, such as the Internet.

**Network address translation**

Network address translation is a method of remapping one IP address space into another by modifying network address information in the IP header of packets while they are in transit across a traffic routing device

**Physical address**

In computing, a physical address, is a memory address that is represented in the form of a binary number on the address bus circuitry in order to enable the data bus to access a particular storage cell of main memory, or a register of memory mapped I/O device.

**MAC address Protocol**

A media access control address is a unique identifier assigned to a network interface controller for use as a network address in communications within a network segment. This use is common in most IEEE 802 networking technologies, including Ethernet, Wi-Fi, and Bluetooth.

**Routers and switches**

The most basic explanation is that a **switch** is designed to connect computers within a network, while a **router** is designed to connect multiple networks together. ... Even though routers and **switches** are different, they can be used interchangeably. For example, a **router** typically has several LAN ports and a single WAN port.

**Static IP address**

A **static IP** address is an **IP** address that was manually configured for a device, versus one that was assigned by a DHCP server. It's called **static** because it doesn't change. It's the exact opposite of a dynamic **IP** address, which does change.

**Dynamic IP address**

A dynamic IP address is an IP address that changes from time to time unlike a static IP address. Most home networks are likely to have a dynamic IP address and the reason for this is because it is cost effective for Internet Service Providers (ISP's) to allocate dynamic IP addresses to their customers.

**Gateway**

Telecommunications

A gateway is a piece of networking hardware used in telecommunications for telecommunications networks that allows data to flow from one discrete network to another.

**Virtual private network**

A virtual private network extends a private network across a public network, and enables users to send and receive data across shared or public networks as if their computing devices were directly connected to the private network.

**Proxy server**

In computer networking, a proxy server is a server application or appliance that acts as an intermediary for requests from clients seeking resources from servers that provide those resources.

**Domain Name System**

IP

The Domain Name System is a hierarchical and decentralized naming system for computers, services, or other resources connected to the Internet or a private network. It associates various information with domain names assigned to each of the participating entities.

**Namespace**

In computing, a namespace is a set of symbols that are used to organize objects of various kinds, so that these objects may be referred to by name. A namespace ensures that all the identifiers within it have unique names so that they can be easily identified.

**[IP address](https://en.wikipedia.org/wiki/IP_address)**

An Internet Protocol **address** (**IP address**) is a numerical label assigned to each device connected to a computer network that uses the Internet Protocol for communication.

An **IP address** serves two main functions: host or network interface identification and location addressing.

**Network topology**

Network topology is the arrangement of the elements of a communication network. Network topology can be used to define or describe the arrangement of various types of telecommunication networks, including command and control radio networks, industrial fieldbusses and computer networks.

**Internet**

The **Internet** is a global wide area network that connects computer systems across the world. It includes several high-bandwidth data lines that comprise the **Internet** "backbone." These lines are connected to major **Internet** hubs that distribute data to other locations, such as web servers and ISPs.

**Intranet**

An intranet is a computer network for sharing information, collaboration tools, operational systems, and other computing services only within an organization, and to the exclusion of access by outsiders to the organization.

**Metropolitan area network**

A metropolitan area network is a computer network that interconnects users with computer resources in a geographic region of the size of a metropolitan area.

**Wide area network**

A wide area network is a telecommunications network that extends over a large geographical area for the primary purpose of computer networking. Wide area networks are often established with leased telecommunication circuits.

**Local area network**

A local area network is a computer network that interconnects computers within a limited area such as a residence, school, laboratory, university campus or office building. By contrast, a wide area network not only covers a larger geographic distance, but also generally involves leased telecommunication circuits.

**Networking**

Networking is the exchange of information and ideas among people with a common profession or special interest, usually in an informal social setting.

Networking often begins with a single point of common ground.

Networking is used by professionals to expand their circles of acquaintances, to [find out about job opportunities in their fields](https://www.investopedia.com/articles/personal-finance/041615/best-websites-find-job-finance.asp), and to increase their awareness of news and trends in their fields or in the greater world. (The term *computer networking* refers to linking multiple devices so that they can readily share information and software resources.)