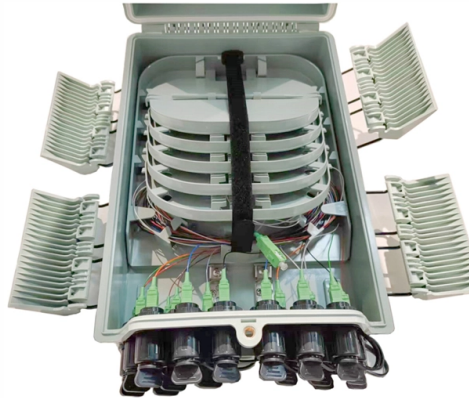


Gateway and Core Switch



Article Overview

A core switch often functions as the gateway in a network, serving as the primary Layer 3 device that routes traffic between subnets and connects the network to external segments.

Core Switch Overview

A core switch is the backbone of a hierarchical network, typically positioned at the top layer of a three-tier architecture (core, distribution, access). It handles high-speed data forwarding, aggregates traffic from distribution switches, and ensures low-latency, reliable connectivity across the network. Core switches are optimized for scalability, fault tolerance, and high throughput, making them essential for large enterprise networks.

Gateway Function

A gateway is a Layer 3 interface that serves as the exit point for a subnet, enabling communication between different networks or VLANs. It can be implemented on various devices, including routers, Layer 3 switches, or core switches. The gateway performs IP routing, protocol translation, and sometimes DHCP services, allowing devices in one subnet to reach other subnets or external networks.

How Core Switches and Gateways Interact

In many network designs, the core switch hosts the gateway interface for multiple VLANs or subnets. This setup centralizes routing and simplifies network management...

Article Content

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Core Switch & Edge Switch: How to Make a Decision?

Core switches serve as the gateway to a wide area network (WAN) or the Internet — they provide the final

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Gateways on Core Switch vs Firewall : r/networking

In data centers, storage is isolated from other data traffic with dedicated switches (and dedicated NICs on hosts that use storage). If

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Campus LAN Core and Distribution Switches

Cisco Catalyst and Meraki Campus LAN core and distribution switches are scalable, secure network switches with exceptional

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Network Switch Vs Router Vs Gateway, Difference & Similarities?

Thus, gateways can be routers, switches, servers, or even personal computers. The primary function of a gateway is

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Core Switch vs. Distribution Switch vs. Access Switch

Comprehensive guide to Core, Distribution, and Access Switches. Roles in the network and important parameters explained.

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Core Switch Explained: Key Functions and Benefits

Discover what a Core Switch is, its pivotal role in network architecture, and how it boosts performance and reliability in

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Core Switch vs Access Switch | Definitions and Key Differences

Core Switch vs Access Switch The core switch is used in the center of your network, while an access switch is placed

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What Is a Core Switch? Network Backbone Architecture Guide

While edge switches handle user connectivity and routers manage external internet traffic, the core switch acts as the

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Native AC Solution: Core Switches Function as the Gateway for Wired

In this example, a CSS of core switches functions as the gateway for wired and wireless users on the entire network and is

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What Is a Core Switch?

A core switch is the backbone of a large-scale network, designed to handle massive volumes of traffic with ultra-low latency and

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Core Switches: The Pillar of Network Infrastructure

Get a closer look at core switches: the nerve centers of network infrastructure that enhance performance and facilitate

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Network Switch Vs Router Vs Gateway, Difference & Similarities?

When setting up an office network, two key players come into the spotlight: switches and routers and gateways. While

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Core Switch vs. Edge Switch: What's the Difference?

Core switches and edge switches are two essential components that play distinct roles in the functioning of a network.

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Access vs. Distribution vs. Core Switch Comparison Guide

Compare Access, Distribution, and Core switches: understand their roles, features, and differences in enterprise network hierarchy.

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Best Practice for default gateway for vlans and layer 3 switch

Is it better to have the default gateway locally at each branch (the 2920 at each office) with a route to the core, or to

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Core Switch Default Gateway

Probably a stupid question but when moving from a flat network to a tagged VLAN network, I know the core switch

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Core Switch Vs Distribution Switch Vs Access Switch

What Is Core Switch? Core switch is not a certain kind of network switch. It refers to the data switch that is positioned

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Understanding Core Switch: What It Is and How to Choose the

In the realm of system networking, three key types of switches are frequently mentioned: access switches, aggregation

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Difference Between Gateway and Switch

Switches are designed so that they begin working without requiring any configuration on the switch or any other part

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Difference between Switch and Gateway

The roles of switches and gateways in networking are different. In a single network, the switch will be responsible for

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Core Switch

Core switches are defined as high-capacity switches located at the top of a cloud data center network, connecting aggregation

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What Is a Core Switch in Networking?

What Is a Core Switch in Networking? Understanding the Backbone of Your Network A core switch in networking

Jul 12, 2026

Solved: core switch and sub switch gateway

Solved: I have a Layer 3 core switch (backbone) 10.18.16.0/24, and the core switch needs to connect to multiple Layer

Contact Us

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