

# Layer 2 switch as the core

Learn Layer 2 and Layer 3 switches in 2026. Covers features, performance, design patterns (campus, branch, data center), and how to choose for your network.

This tutorial provides an overview of the access, distribution, and core layers and explains two-tier and three-tier campus LAN designs.

Because all links between the core and distribution switches are routed Layer 3 transit links, Layer 2 loops are physically impossible. Therefore, STP is irrelevant in the core.

Unlike access switches, which connect directly to end-user devices, the core switch focuses on aggregating and routing traffic between other switches, minimizing latency and ...

As this layer bridges the core and access layer, security measures like access control list (ACL), user access authentication, etc are introduced in layer 2 switches.

The core switch functions as the central point of the entire network, forming the high-speed backbone for the organization's data infrastructure. Its primary purpose is to provide an ...

We are planning to introduce distribution switches to migrate the L2 boundary to those switches instead of the CORE ones, so the vlans will be expanded to those distribution switches (L2 ...

&#183; Layer Positioning: The data link layer (Layer 2) of the OSI model, realizing local forwarding of data frames based on MAC addresses. &#183; Core Task: Establishing direct ...

Once installed, a Layer 2 switch learns about its connected hosts and networks by examining the source addresses of frames it receives. It builds a cache (database) of these MAC ...

Layer 2 switches operate at the data link layer, forwarding data based on MAC addresses, while layer 3 switches route traffic using IP addresses. Understanding the differences between these ...



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