

Is VLAN on the core switch or the access layer



Overview

Core Layer: Two core switches (CORE A & CORE B) for redundancy and high availability. VLAN 1 and VLAN 10 are configured for different devices. Each layer is served by specialized switches, with the access switch connecting end-user devices, the distribution switch aggregating traffic and enforcing policies, and the core switch acting as the high-speed backbone. This guide will demystify these roles and help you understand their. At present, we're using L2 VLAN trunks between the core and access. Some concerns I have with his argument are: * We're used to using L2 VLAN trunks * The L2 design is fairly simple * The end users are not "sensitive" enough to feel a failover of links from one core switch to another when a trunk. It contains three layers: core, distribution, and access. The core layer is the backbone of the network. 1Q trunks, carrying many VLANs. Why did this design dominate?

1. Simplicity (at first) You only think in. Instead of using 802.



Article Content

Nov 17, 2025

Cisco Core vs Access Switches: Key Differences

Compare Cisco core switches and access switches. Learn key differences for network design and performance.

May 29, 2026

Access, Distribution, and Core Layers Explained

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

Jun 02, 2026

Where to do inter-VLAN routing? (core/distribution/access)

We have a network core comprising of two Cisco 3560E-12D-S switches. From these two switches, we have connections to all our top of rack switches and also to our end user access layer

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THIS GUY REPLACED EVERY SUBSCRIPTION FOR OVER 30

Om Patel (@om_patel5). 251 replies. THIS GUY REPLACED EVERY SUBSCRIPTION FOR OVER 30 SERVICES WITH A HOMELAB HE BUILT USING CLAUDE CODE he built his own

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Access, Distribution, and Core Layers Explained

For example, a switch that provides access-layer functionality is called an access switch, a switch that operates in the distribution layer is known

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Understanding Network Hierarchical Structure with Core and Access

Core Layer: Two core switches (CORE A & CORE B) for redundancy and high availability. Access Layer: Two access switches (ACCESS 1 & ACCESS 2) connecting laptops to VLANs.

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SMB Network Design: Core vs. Distribution vs. Access Switches

Core Layer: The high-speed backbone, often connecting multiple distribution switches. Distribution Layer: The middle ground that aggregates access layer traffic, applying routing and

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Free Aruba Campus Access Professional (Written) Sample Ques

Access switches must connect to the core with active-active uplinks utilizing all available bandwidth. The solution must support a stretched layer 2 domain for specific legacy applications.

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Core vs Distribution vs Access Switch: Architecture Guide

When an employee's PC sends data, the access switch injects an IEEE 802.1Q VLAN tag into the frame, segregating that traffic from the guest Wi-Fi or IoT devices connected to the same

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Core Switch vs. Distribution Switch vs. Access Switch

Core Switch vs. Distribution Switch vs. Access Switch: Understand Their Roles in Ethernet Networks Ethernet networks are growing and becoming more complex,

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Datacenter Core and Aggregation Design

Introduction Layered Datacenter Architecture Datacenter Core Layer Datacenter Aggregation Layer Datacenter Access Layer Related Information

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Wireless VLANs

Wireless VLANs Note When you configure VLANs on access points, the native VLAN must be VLAN 1. In a single architecture, client traffic that is

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Networking 101: VLANs and Network Layers

Explaining VLANs and network layers using a carefully-crafted collection of 1's and 0's, delivered via millions of electrical pulses through a cable

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where would a logical vlan be configured on the Core switch, or access ...

Therefore, a local VLAN would never span from an access layer to a core block. Because VLANs are created based on geographic or physical boundaries, it's not uncommon to see much of

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Understanding Network Hierarchical Structure with Core and Access Layers

VLANs: VLAN 1 and VLAN 10 are configured for different devices. CORE A is the primary gateway for VLAN 1 to ensure optimized traffic routing. CORE B is the primary gateway for VLAN 10

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Here's Why Your Network Might Need a Layer 3 Switch

Layer 3 switches are used in conjunction with traditional switches and network routers on some corporate networks, particularly those with VLANs.

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Explore Hierarchical Networks: Access, Distribution,

Distribution Layer The distribution layer basically serves as a boundary between the access layer and the core layer, providing policy-based connectivity.

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What does a layer 3 access design look like? : r/networking

I often hear it's advantageous to utilize layer 3 at the access layer devices to avoid having broadcasts spanning the network and not having to deal with huge STP topologies. But what exactly does this

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Switching Design with Access, Distribution and Core Level

Hi Support, I read that in the Campus architecture, we have 3 levels, Access (connected and users and desktops), Distribution (Connected access

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Best Practices for Hierarchical Layers

Use the distribution switches to connect Layer 2 VLANs that span multiple access layer switches. Summarize routes from the distribution to the core

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Core, Distribution, and Access Layer Explained with

When changes happen at the access layer—like adding a new VLAN for a department—those changes stay contained at the distribution layer. The

Jul 29, 2025

Access vs. Distribution vs. Core Switch Comparison Guide

While access switches provide end-device connectivity, distribution switches aggregate traffic and enforce policies, and core switches form the high-speed backbone.

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How to Create VLAN | Switchport Mode Access

What that means is it's probably going to be all of your access and distribution switches in that common wiring closet, that common building. We wouldn't

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Routing Between VLANs & Layer 3 Switches

Learn what a Router Sub-interface and a L3 Switch is, as well as how to configure both of them on Cisco devices to enable Routing between VLANs.

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Layer 2 vs Layer 3 in Access Networks: When It's Time

End devices are still in VLANs, but the default gateway SVI lives on the access switch, not on the core. Uplinks from access to distribution/core are

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Three-Layer Model

The Cisco hierarchical model can help you design, implement, and maintain a scalable, reliable, cost-effective hierarchical internetwork. Cisco defines three

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Core to Access Layers

Solved: Hi Guys, I had a philosophical discussion with a contractor the other day about his desire to use L3 routed links between the core and access. At present, we're using L2 VLAN

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Huawei S6730 Switch - 10GE Aggregation & Core

The Huawei S6730-H Switch series answers with high-density 10 GE access, robust Layer-3 capabilities, VXLAN virtualization, and intelligent O& M.

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Core, Distribution, and Access Layer Explained with

Switches at this layer are optimized for port density rather than raw switching power. They typically include features like Power over Ethernet (PoE),

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Core Switch vs Access Switch | Definitions and Key Differences

This article focuses on the hierarchical internetworking and core switch vs access switch differences. We also discussed the core switches type and built a basic understanding of how a

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