

Core Switching VLANs



Overview

Pinging of VLANS (Core and Access Switch) VLAN routing seems to be working on the core switch when I test communication between VLANs by using the command.

Key Takeaways

VLANs on a core switch are configured based on the switch's role and the type of links connecting it to access and distribution layers.

Understanding Core Switches

A core switch serves as the backbone of a network, interconnecting distribution switches and providing high-speed, low-latency traffic forwarding across VLANs and subnets. Core switches often operate at Layer 3, supporting IP routing between VLANs, subnets, and security zones, and include features like redundancy, modular scalability, and advanced security controls. They are optimized for high throughput and reliability, making them central to enterprise and campus networks.

VLA

N Configuration on Core SwitchesWhether you need to configure VLANs on a core switch depends on the network design: Layer 2 Core Switch: If the core switch operates at Layer 2, all VLANs that traverse the network must be defined on the core switch. This ensures proper VLAN tagging and forwarding across trunk links connecting access and distribution switches. Layer 3 Core Switch: If the core switch is Layer 3 and uses routed links to connect distribution or access switches, VLANs may only need to exist on the access and distribution switches.

The core switch handles inter-VLAN routing via SVI (Switched Virtual Interfaces) without requiring all VLANs to be explicitly configured.

Best Practices for VLAN Implementation

Trunk Links: When access or distribution switches connect to the core via trunk ports, the VLANs must exist on both the core and the connecting switches to allow proper tagging and traffic flow. **Routed Links:** If the connection is routed (Layer 3), VLANs only need to exist on the access/distribution switches, and the core switch routes traffic between subnets using SVIs or routed interfaces.

Interconnection VLA

Ns: For connectivity with firewalls, BRAS, or other network devices, create dedicated interconnection VLANs on the core switch and bind them to appropriate interfaces or VPN instances. **Redundancy and Scalability:** Use redundant links and consider modular or stackable core switches to accommodate future VLAN growth and maintain high availability.

Summary

Layer 2 core: VLANs must be configured on the core switch. **Layer 3 core:** VLANs may only need to exist on access/distribution switches; the core handles routing. **Trunks vs routed links:** Trunks require VLANs on all connected switches; routed links do not.

Interconnection VLA

Ns: Required for connectivity to external devices or VPN instances.

Proper VLA

N planning ensures efficient traffic segmentation, inter-VLAN routing, and network scalability while maintaining high performance and reliability.

Article Content

Pinging of VLANS (Core and Access Switch)

VLAN routing seems to be working on the core switch when I test communication between VLANs by using the command "ping [VLAN 10 SVI] source [VLAN 20 SVI]". The VLANs can ping

What Is a Core Switch in Networking?

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

[serenalindquist99/server-core-switch-lab](#)

This lab simulates a real-world enterprise network upgrade involving the replacement and configuration of core switches, port migration, ACL deployment, and rollback planning.

Master VLANs & Core Switching [PART 1] | Complete Switching Basics

In this video, you'll learn Core Switching and VLAN fundamentals in the simplest way possible.

Layer 2 VLAN Configuration on a Cisco Switch (with Example)

This post will deal with creating Layer 2 VLANs on Cisco switches and performing all relevant configurations. Up to 4094 VLANs can be configured on Cisco catalyst switches. By default, only

Configuring the Core Switch

Configure interfaces for interconnecting the core switch with BRASs. # Create interconnection VLANs on the core switch and add interfaces to the interconnection VLANs. # Create

Best place to configure VLANs: Core Switch vs Peplink 3?

Best practice is to create VLANs on the core switch. It depends on what the VLAN is for. What is in it, what connects to it (and from where), and how secure it needs to be. Based on that, you

Core Switch vs. Distribution Switch vs. Access Switch

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

Core Switch Configuration Guide | PDF | Ip Address

This document outlines the configuration steps for a core switch in a server room, including connecting via serial cable, assigning hostnames, creating user accounts with specific password requirements,

Understanding Enterprise Network Infrastructure: From

Edge routers handle inter-VLAN routing and network address translation (NAT). Core switches aggregate links from multiple access or

networkplus-notes/Section 8: Ethernet_Switching/64_Understanding_VLANs ...

□□ Understanding VLANs (OBJ 2.2) This lesson demonstrates how VLANs logically segment a network into separate broadcast domains using a graphical user interface (GUI) VLAN viewer. It shows how

UniFi Switching

Switching evolved. High-performance switches designed to scale and optimize performance of any network with a magical management experience.

how to configure vlan on cisco core switch

Please help me 100K sub / @tankirivann Hi everyone, in this video we are going to practice on cisco vlan configuration. we create vlan on our core switch and using VTP protocol to share all our vlan ...

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

Configuring local Vlan I have learned to configure the vlan interfaces on the core switch- and then configure the access switch with the desired vlan and assign the switch port to that vlan! If I

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 serves as the high-capacity backbone, centralizing data flow and

Making VLAN with core switch

If not using AD then any of the switches you mention have DHCP server capability. Add a DHCP scope, VLAN and SVI config to any switch (preferably the core switch) and add the VLAN to

Best place to configure VLANs: Core Switch vs Peplink 3?

Hi everyone, I have a question regarding VLAN setup in a network. In my infrastructure, I have a core switch and a Peplink 3 (router/firewall). Should the VLANs be created and configured on

Catalyst 2948G-L3 Sample Configurations

Introduction This document provides three sample configurations for the Catalyst 2948G-L3. The configurations are a single-VLAN network, a multi-VLAN network, and a multi-VLAN distribution layer

Related Video Reference

This video was associated with the source search result. Verify technical details against current product documentation and project requirements.

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Technical inquiry: <https://fdsoluciones.es/project-enquiry.html>

This document is for preliminary research. Verify specifications against current standards, product documentation and project requirements.

