

Core Switch VLANs



From standard 1U to 8U sizes to
fully customized Non-standard enclosures.

AI Overview

VLANs should generally be configured on the core switch, especially if it is Layer 3 capable, to enable efficient inter-VLAN routing and centralized management. Core Switch Role and VLAN Placement A core switch serves as the high-capacity backbone of a network, aggregating traffic from distribution and access switches and routing data between VLANs and external networks. Whether VLANs need to be configured on the core switch depends on the switch type and network design: Layer 2 Core Switch: VLANs must be defined on the core switch if it participates in VLAN trunking between access/distribution switches. The core acts as a pass-through for VLAN traffic, so all VLANs that traverse the core need to exist there. Layer 3 Core Switch: VLANs are typically configured with SVI (Switch Virtual Interfaces) to enable inter-VLAN routing at line speed. Only VLANs that require routing or act as gateways need SVIs; other VLANs may exist only on access/distribution switches. Configuration Considerations Trunking: If multiple switches share VLANs, configure trunk ports on the core switch to carry all relevant VLANs between switches. Routing: For Layer 3 cores, create SVI interfaces for each routed VLAN and assign IP addresses to serve as the default gateway for devices in that VLAN. Security and Segmentation: VLANs on the core switch allow centralized enforcement of ACLs and routing policies. High-security VLANs may still route through a firewall for stateful inspection. Management: Best practice is to manage VLANs from a single location (usually the core switch) to avoid configuration inconsistencies. Practical Example Voice VLANs: If deploying a new voice VLAN, it should be configured on the core switch if the core is Layer 2 or Layer 3 and participates in trunking or routing for that VLAN. Interconnection VLANs: VLANs connecting the core to firewalls, BRAS, or other network devices should be created on the core switch and associated with the appropriate interfaces or VPN instances. Summary Always define VLANs where they are used: access/distribution s...

Article Content

Best practices when configuring an Access switch stack to Core

Given the VLANs are the same on all switches and each trunk port is on the same native VLAN and can cross identical VLANs, am I missing anything else for connectivity? And in terms of redundancy, is it

[crisstophergonza/cisco-multi-vlan-architecture](#)

This deployment engineers a scalable, secure, and production-ready Local Area Network (LAN) architecture for a multi-floor corporate office environment using Cisco Packet Tracer. The design

Difference between a core switch and "normal" switch?

Core switches have much higher limits: on number of VLANs, MAC addresses, ACL number and complexity. It's also commonly a chassis-based switch, as this allows simpler fault correction and

Ethernet Switch Port Types Explained 2026: RJ45,

A complete engineering guide to Ethernet switch port types: RJ45, SFP, SFP+, SFP28, QSFP+, QSFP28, Combo, Stack, PoE, access/trunk/hybrid

How to Configure VLAN on Cisco Switch: Step-by-Step ...

Learn how to configure VLAN on Cisco switch step-by-step. Covers VLAN creation, port assignment, trunk configuration, best practices, and troubleshooting tips for IT professionals, SMBs, and enterprises.

Configuring the Core Switch

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

[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.

How to Create and Configure VLANs 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.

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.

Layer 2 vs Layer 3 Switches in 2026: Optimizing

Access-layer switches on each floor, with centralized routing at the core What is a Layer 3 Switch (Multilayer Switch)? Core Role and Capabilities A Layer 3 switch

Do I have to configure new VLANs on the core switch?

If the access/distribution switches connect the user vlans to the core using routed links then you need to configure the vlans only on the access/distribution switches.

Best practices when configuring an Access switch stack to Core

Make sure the core switch is the root bridge, and enable portfast and BPDU guard on all access interfaces. Do your routing on the core switch, with an L3 transit to the firewall.

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

A core switch is not merely a type of switch but rather denotes the switch that operates at the core layer (the network's backbone). Positioned at the top of the three-layer network architecture ...

7 Best Enterprise Core Switches for 2026 That Power Your Network

Stay ahead in network infrastructure with the top enterprise core switches for 2026 that promise unmatched performance and future-proofing.

Static routes and switches : r/networking

On the core switch, you need configure the VLANs but also the SVIs, VRFs and routes to the firewall. Of course, from the firewall you need to configure static routes back the switch as well.

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

Configuring local Vlans 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

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

Inter-VLAN Routing: RoAS, SVIs & What Breaks First

Learn inter-VLAN routing with step-by-step Cisco configs for router-on-a-stick and Layer 3 SVIs. Includes HSRP redundancy, DHCP relay, ACLs, and troubleshooting commands.

how to configure vlan on cisco core switch

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

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

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?

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

Layer 2 vs Layer 3 Switch: Key Differences and Use Cases

Layer 2 vs Layer 3 switch explained. Learn MAC vs IP forwarding, inter-VLAN routing, performance differences, and when to choose each switch type.

Contact Us

For more information, pricing, or custom solutions, please contact us:

Website: <https://lwazipm.co.za>

Email: info@lwazipm.co.za

Phone: +27 82 415 6392

Address: 15 Oxford Street, Rosebank, Johannesburg, 2196, South Africa

This document is for informational purposes only. Specifications subject to change without notice.

