

Do aggregation layer switches still need VLANs configured

Article Overview

Yes, aggregation layer switches typically need to be configured with VLANs to segment traffic, manage broadcast domains, and enable Layer 3 routing between subnets.

Role of VLANs in Aggregation Layer

Aggregation layer switches serve as the intermediary between access layer switches and the core network. Configuring VLANs on these switches allows:

- Traffic Segmentation: VLANs isolate broadcast domains, preventing unnecessary traffic from propagating across the network .
- Layer 3 Routing: Each VLAN can have a corresponding Layer 3 interface (SVI) on the aggregation switch to route traffic between VLANs .
- Multi-Tenant or Multi-Service Support: VLANs, combined with features like Virtual Device Contexts (VDCs) on Cisco switches, allow logical separation of traffic and control planes for different tenants or services .

Practical Considerations

- Trunk vs Access Ports: Aggregation switches often use trunk ports to carry multiple VLANs from access switches. This allows multiple VLANs to share the same physical uplink while maintaining separation .
- VLAN Aggregation: Technologies like super-VLANs or sub-VLANs can be used to co...

Article Content

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MS Layer 3 Switching and Routing

Layer 3 routing capabilities are available on most Cisco Meraki switches. This allows the switches to route traffic between VLANs in a campus network without the need for an additional layer

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How to Configure VLAN and Inter-VLAN Routing on Cisco Switches

Next Steps Ready to improve your network infrastructure with VLANs and inter-VLAN routing? Explore our range of Cisco Switches, including Cisco Catalyst 3850 Series and Cisco Catalyst 4500 Series

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networking

It's rather the inverse: on a typical managed switch, only explicitly whitelisted VLANs will be passed through a port. So you get that behaviour more or less by default. still need to use two

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L2 vs L3 switching explained (and when you need each)

Layer 2 switches live at the access layer, where devices plug in — they forward by MAC address within a network and carry the VLANs that segment it. Layer 3 switches live at the

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Chassis Aggregation

Without switch aggregation, we do have some redundant uplinks from the distribution layer to the core layer. If you use VLANs on these interfaces, spanning tree will block some of the links to create a

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LAN Switching Configuration Guide

Where an aggregation route performs inter-VLAN routing for multiple VLANs, traffic can be switched autonomously on-card or between cards rather than through the central Route Switch

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What Is an Aggregation Switch and How to Choose?

Discover the role of aggregation switches. Explore differences between aggregation, access, and core switches, and choose the right model for your network.

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Understanding VLAN Aggregation

S1720, S2700, S5700, and S6720 V200R011C10 Configuration Guide - Ethernet Switching This document describes the configuration of Ethernet services, including configuring link aggregation,

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Everything You Need to Know About Aggregation Switch

Aggregation switches provide several benefits to Layer 2 networks, including:
Increased bandwidth: Aggregation switches consolidate traffic from multiple devices into a single high

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Configuring Aggregation and Access Switches to Be Managed by the ...

In this example, aggregation/access switches and APs use independent auto-negotiated management VLANs. When configuring the management VLAN, enable the wireless management

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Understanding Switch Aggregation: A Comprehensive Guide

Aggregation layer switches aggregate data from multiple access switches and routes it to the core layer of the network. They provide inter-VLAN routing and advanced policies for handling

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Hier sollte eine Beschreibung angezeigt werden, diese Seite lässt dies jedoch nicht zu.

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Configuration Guide for Cisco NCS 4000 Series

This chapter describes the procedures to configure Link Aggregation on Cisco NCS 4000 Series routers. Link Aggregation Overview Understanding Link Bundle Characteristics and

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Large Campus Switching Best Practices

Once the aggregation layer has been configured, a campus network architecture will require a way to connect end-users and clients to the network. It is generally recommended best practice to introduce

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What Is an Aggregation Switch and How to Choose?

An aggregation switch is a network device that consolidates traffic from multiple access switches, wireless access points, or other edge devices and forwards it to core switches or routers.

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InterVLAN routing using Layer 3 switch

Why do we need Layer 3 switches? Back in the old days, when the networks started to grow rapidly, people realized that it was unscalable to perform InterVlan

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Understanding VLAN Aggregation

VLAN aggregation allows sub-VLANs to share the same Layer 3 interface, thereby conserving subnet numbers, default gateway addresses, and directed broadcast addresses of subnets.

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Link Aggregation, LAG, LACP and MLAG in 2026: Design, Best

Link aggregation, LAG, LACP, and MLAG are not old tricks-they're foundational technologies that still underpin most serious networks in 2026: LAG increases aggregate bandwidth

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Datacenter Core and Aggregation Design

The aggregation VDCs supports Layer 2 multi-pathing to the access layers through virtual port-channels (vPCs). Enterprise VLANs having their Layer 3 termination on the SVI interfaces

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Will Layer 2 Aggregation interfere with VLANs : r/UNIFI

Yes, as long as your ports are configured as All. It's a regular switch functionally. The name does make it seem like it would work different but that is not the case.

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Must Gateways Be Configured at the Core? A Complete ...

If you've ever wondered: Can aggregation switches handle VLANIF interfaces? Will using the core as a gateway overburden it? Is it secure to place gateways at the access layer? After

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VLAN Configuration Guide

Before you create VLANs, you must decide whether to use VLAN Trunking Protocol (VTP) to maintain global VLAN configuration for your network.

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Understanding VLANs and Inter-VLAN Routing

Understanding VLAN tagging is essential for implementing more advanced networking concepts like inter-VLAN routing, which allows devices on different VLANs to communicate with each

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Understanding VLAN Aggregation

Although VLAN aggregation allows different VLANs to use IP addresses on the same subnet, it creates a Layer 3 forwarding problem between sub-VLANs. In common VLAN mode, hosts in different

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What is Switch Aggregation, Its Role and Selection Advice

This article wraps up "what is switch aggregation" and suggestions for choosing an aggregation switch. By considering these factors, network administrators can make informed

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Understanding VLANs with Unmanaged Switches: Insights into

Hi, I'm Juan David, Tech Lead Support at Flytec and a UniFi Certified Trainer. If you're diving into networking, VLANs, and UniFi setups, welcome! Today, we'll

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