

Access Switch Layer 3 Switch



Article Overview

A Layer 3 access switch combines traditional switching with routing capabilities, enabling inter-VLAN routing and efficient traffic management at the access layer.

Overview of L3 Access Switches

A Layer 3 (L3) access switch operates at the Network layer (Layer 3) of the OSI model, combining the functions of a traditional Layer 2 switch with routing capabilities. Unlike L2 switches, which forward traffic based solely on MAC addresses within the same VLAN, L3 switches use IP addresses to route traffic between different subnets or VLANs, allowing for more efficient network segmentation and reduced reliance on aggregation-layer routers .

Role in the Access Layer

In a hierarchical network, the access layer connects end devices such as computers, IP phones, and wireless access points to the network. L3 access switches provide:

- Inter-VLAN routing directly at the access layer, reducing the load on aggregation switches .
- Policy enforcement through ACLs and QoS closer to end users, improving security and traffic management .
- High port density and PoE support for devices like IP phones and cameras .



Article Content

How To Use A Layer 3 Switch In A Small Network

This is where a Layer 3 switch comes in handy. A Layer 3 switch can perform IP routing tasks as well as Layer 2 tasks such as

Layer-Three Switching and Forwarding

This page contains information about Layer-Three Switching and Forwarding technology.

What Is an Access Layer Switch? Guide complet

Learn what an access layer switch is, how it works in enterprise networks, and how to choose the right Cisco access switch for your

Layer 3 Access

This chapter explains configuring Layer 3 wireless controller deployments on Cisco Catalyst 9800 series, covering L3 access setup,

Access, Distribution, and Core Layers Explained

Switches in this layer are called access switches. End devices connect to the LAN through

Core, Distribution, and Access Layer Explained with

The access layer: Where users meet the network The access layer is where end-user

Hierarchical internetworking model

Access layer End-stations and servers connect to the enterprise at the access layer. Access layer devices are usually commodity

Solved: access-lists on layer 3 switch

Hello, I am going to be installing some layer three switches. I have a question about how access-lists work in this

Layer 3 switches explained

Layer 3 switches are explained in this tip, including the difference between a switch, a router and a Layer 3 switch.

Layer 2, Layer 3, and Layer 4 Switches

Therefore, Layer 2 switches are used to provide cheap and easy workgroup connectivity, and Layer 3 switches are used to segment

H3C S5120V3-LI Layer 3 Gigabit Access Switch Series

Layer 3 routing features H3C S5120V3-LI switch series provides rich layer 3 routing features and supports

How to configure a Cisco Layer 3 Switch-InterVLAN Routing Without

For example, some switch models that support layer 3 routing are the 3550, 3750, 3560 etc. On a Layer3-capable switch, the port

MS Layer 3 Switching and Routing

Layer 3 routing capabilities are available on most Cisco Meraki switches. This allows the switches to route traffic

Layer 3 Switch Example

This article will cover a basic example of how layer 3 routing functionality on MS series switches could be implemented. Before

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

Each access switch (or stack) becomes a Layer 3 device, not just a Layer 2 island. End devices are still in VLANs, but

Best Layer 3 Switch of 2026: Tested and Reviewed

In this guide, we've tested and reviewed the best layer 3 switch on the market to help you

Is it wrong to configure access layer switches as layer 3

Is it wrong to configure access layer switches as layer 3 instead of layer2 as all the latest 9200 9309 series essential

Understanding Layer 3 Switches: A Comprehensive Guide

Layer 3 switches operate by combining the functionality of Layer 2 switching and Layer 3 routing. They can perform

Best Layer 3 Switch in 2026: Tested and Reviewed

In this guide, we've tested and reviewed some of the top Layer 3 switches available today to help you make an

Access vs. Distribution vs. Core Switch Comparison Guide

Distribution Layer Switches: Positioned between the access and core layers, distribution switches aggregate traffic from multiple

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

What Is a Layer 3 Switch? Definition, How It Works, Pros & Cons

What is a Layer 3 switch? Learn the definition, how it works, use cases, pros and cons, and when to choose a

Hierarchisches Internetworking-Modell – Wikipedia

Zugriffsschicht Endgeräte und Server verbinden sich an der Zugriffsschicht (engl. access layer) zu den Unternehmen. Geräte der

Configuring trunk between Layer2 and Layer3Switch

You have Dist1 and Dist2 connected with Layer 3 or Layer2 Trunk with VLAN Interface of 50 (you need to clarify that)

Access, Distribution, and Core Layers Explained

A two-tier network combines hardware that supports the distribution and core layers.

No Internet Access and Unable to Ping out on Layer 3 Switch

I am doing a project in my class where I have to be able to access the internet from a layer 3 switch that is using

Access Switches verstehen: Schlüsselkomponenten für die

Layer-3-Switches für Ihr Unternehmen sollten zusätzliche Routing-Funktionen innerhalb der Access-Schicht bieten, die

Layer 3 switches in access layer?

Hello, I see that in most campus networks layer 3 switches are used in core and distribution layer and layer 2 switches

Contact Us

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