

How to configure routing on an access layer switch



Article Overview

Routing on an access layer switch is enabled by configuring Layer 3 interfaces (SVIs or routed ports) and enabling IP routing to allow inter-VLAN communication.

Enable Layer 3 Functionality

To configure routing on a Layer 3 switch, you first need to enable IP routing. On Cisco switches, this can be done using the `ip routing` command in global configuration mode. Some models, like the 2960-XR, may require adjusting the SDM template with `sdm prefer lanbase-routing` and reloading the switch to allocate resources for Layer 3 routing. Meraki switches allow enabling Layer 3 routing through the dashboard under Switching > Configure > Routing & DHCP.

Configure Switched Virtual Interfaces (SVIs)

SVIs act as Layer 3 interfaces for each VLAN. Steps include:

- Create a VLAN interface: `interface vlan`
- Assign an IP address and subnet mask: `ip address`
- Ensure the VLAN exists and has active ports assigned. Only VLANs with configured SVIs can route traffic. For example, VLAN 10 with IP 192.168.1.1/24:

```
interface vlan 10 ip address 192.168.1.1 255.255.255.0 no shutdown
```

Configure Routed Ports (Optional)

Physical interfaces can be converted to routed ports to act as Layer 3 interfaces:

Article Content

Inter-VLAN Routing Configuration

To configure multi-layer switch inter-VLAN routing on a Cisco device, in accordance with the diagram shown in Figure

Inter-VLAN Routing using Layer 3 Switches (4.3)

In these very large networks, network administrators use Layer 3 switches to configure inter-VLAN routing. Inter-VLAN routing using

Cisco Switch Layer2 Layer3 Design and Configuration

The diagram above shows one Layer 3 switch used for Aggregation, three Layer 2 switches used for access purposes and one

Cisco Layer 3 Switch InterVLAN Routing Configuration

A simple approach in understanding how to configure Cisco Layer 3 switch interVLAN routing to enable routing capabilities among

MS Layer 3 Switching and Routing

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

Inter-VLAN Routing using Layer 3 Switches (4.3)

In this section, you configure inter-VLAN routing using Layer 3 switches. Modern enterprise networks rarely use router-on-a-stick

High Availability Campus Network Design--Routed Access Layer using ...

An alternative configuration to the traditional distribution block model illustrated above is one in which the access

Configuring Layer 3 Interfaces

All Ethernet ports are switched interfaces by default. You can change this default behavior with the CLI setup script or through the

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

Learn how to configure VLAN and inter-VLAN routing on Cisco switches using CLI. Step-by-step VLAN setup, trunking, router-on-a

Example for Configuring a Layer 3 Switch to Work with a Router for ...

Layer 3 switches provide the routing function, which indicates a network-layer function in the OSI model. Layer 3 switches can work

Configuring Cisco Layer 3 Switch InterVLAN Routing

Learn how to configure a Cisco Layer 3 switch for InterVLAN routing without a router in a few

How to enable layer 3 routing on switch

To configure layer 2 ports as layer 3 you have to give a command "no switchport" at interface config mode and assign

LAN Switching Configuration Guide

Configuring Routing Between VLANs with Inter-Switch Link Encapsulation This section describes the Inter-Switch Link

Understanding Access Switches: Key Components of Your Network Switch ...

Explore the role of access switches in your LAN setup. Understand their key components, functions in the access layer,

Inter VLAN Routing by Layer 3 Switch

Disadvantages: Complexity: Inter-VLAN routing by Layer 3 switch can be complex to configure and manage,

Layer 3 Switch Example

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

Configure Layer 3 Switch SVI Routing | ComputingForGeeks

This guide configures inter-VLAN routing on a Layer 3 switch with SVIs, end to end on Cisco IOS: enabling IP routing,

How To Use A Layer 3 Switch In A Small Network

Before you configure the Layer 3 switch, create static routes in the gateway router to each of the new subnets. In this example, my

Layer 3 Switch Routing – Concepts, Configuration, and Best Practices

A Layer 3 switch combines hardware-speed Layer 2 switching with IP routing, allowing it to route packets between VLANs internally

Layer 3 Switch Example

Configuring the Switch Ports Additional Considerations Switch Management IP and Layer 3 Interfaces (SVIs) Related KBs This

InterVLAN routing using Layer 3 switch | NetworkAcademy.IO

InterVLAN routing using Layer 3 switch In this lesson, we will learn to configure a multilayer switch (also called Layer 3 switch) to

Access Layer Compact Switch Deployment Guide

ess similar to other access layer switches. The main difference is that its upstream switch is a member of the existing layer-2 access

MS Layer 3 Switching and Routing

To start using layer 3 routing, navigate to the Switching > Configure > Routing & DHCP page. Alternatively, you could

How To Configure Inter VLAN Routing On A Layer 3 Switch

This guide walks you through the full process of setting up inter-VLAN routing using Switched Virtual Interfaces (SVIs)

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

Example for Configuring a Layer 2 Switch to Work with a Router for ...

Configure interface-based VLAN assignment on the switch for Layer 2 forwarding. Configure the router as the gateway of users to

Deploying a Routed Access Network Architecture on a Collapsed Core ...

Throughout this how-to my assumption is of a collapsed core network topology, whereby I have an access layer node

Contact Us

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