

Internal VLAN interconnection of 1 core switch



Article Overview

Internal VLAN interconnection on a core switch is typically achieved using Layer 3 switch routing with Switched Virtual Interfaces (SVIs), allowing high-speed communication between VLANs without an external router.

Overview

VLANs segment a network into separate broadcast domains, improving security and performance. By default, devices in different VLANs cannot communicate. Inter-VLAN routing enables communication between VLANs, and on a core switch, this is most efficiently handled using Layer 3 capabilities .

Methods for Inter-VLAN Routing

- Layer 3 Switch Routing (SVI-Based Routing)
- Each VLAN is assigned a Switched Virtual Interface (SVI) with a unique IP address, acting as the default gateway for devices in that VLAN.
- Traffic between VLANs is routed internally within the switch, providing high-speed interconnection without relying on an external router .

• Example configuration:

```
interface Vlan10 ip address 192.168.10.1 255.255.255.0 no shutdown
interface Vlan20 ip address 192.168.20.1 255.255.255.0 no shutdown
```

- Ensure SVIs are active by connecting them to live switch ports and enabling IP routing on the switch....

Article Content

Inter-VLAN Routing using Layer 3 Switches (4.3)

To provide inter-VLAN routing, Layer 3 switches use SVIs. SVIs are configured using the same interface `vlan vlan-id` command used

Network Switches

Cisco network switches deliver performance, flexibility, and security. Cisco switches are scalable and cost

Module 4: InterVLAN Routing

Routing can now be performed at L2 switching speeds by switching frames/packets using specialized ASICs L3 switches serve as

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

Configuring the Core Switch

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

Routing Between VLANs Overview [Networking Software (IOS & NX

Implementation of VLANs also improves scalability, particularly in LAN environments that support broadcast- or multicast-intensive

Configure Inter-VLAN Routing with Catalyst Switches

This document describes how to configure Inter VLAN routing with Cisco Catalyst series switches.

Configuring a new core switch with VLANs

I have a core switch that I've purchased second hand, it's foundry switch. I have created 4 VLANs (VLAN1 to VLAN4). I

How to configure a Cisco Layer3 Switch-InterVLAN Routing Without

A Routed Port will be configured between the Layer3 Switch and ASA internal interface to route packets towards the internet (via the

Tech.Bit: What's the deal with internal VLANs?

Tech.Bit: What's the deal with internal VLANs? Defining internal VLANs, what they do, plus the problems and safety measures to be

VLAN AND INTER VLAN ROUTING. This report covers VLANs and

This report covers VLANs and inter VLAN routing, which are crucial components of network segmentation and security.

Inter-VLAN routing on Core vs Distribution switches

We're currently upgrading our flat L2 switch topology to a three-tier design using SG-class switches in a building

How to configure VLAN and inter-VLAN Routing in Packet Tracer

This is a simple step-by-step guide for configuring VLAN and inter-VLAN routing on a Cisco switch. But just before

VLANs and Inter-VLAN Routing Explained for CCNA (2025) - ZILL E ALI

VLAN (Virtual LAN) is a logical grouping of devices within a switch that behave as if they're on separate physical networks. Think of

Best Practices for Inter-VLAN Routing in CISCO

In this discussion, lets explore the best ways to set up Inter-VLAN Routing on Cisco devices, using simple explanations and clear

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

A basic VLAN lab needs two switches, one router or L3 switch, and a couple of endpoints. Start with RoAS (it's

Routing Between VLANs & Layer 3 Switches

Learn what a Router Sub-interface and a L3 Switch is, as well as how to configure both of them on Cisco devices to enable Routing

Inter-VLAN Routing Configuration

Inter-VLAN routing is a network configuration technique that allows communication between devices on different

Inter-VLAN Routing Configuration

The L3 switch internally routes the unicast traffic to its VLAN 20 virtual interface and then retags the traffic, which it

InterVLAN Routing

In this lesson you will learn about the different options there are for routing between VLANs: Router on a stick, SVI interface or L3

InterVLAN Routing

The switch above has been configured with two VLANs, VLAN 1 and 2. The Ethernet interfaces are then assigned to each 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

Configuring Interconnection Interfaces and Routes for the Core Switch ...

In this example, Internet access traffic of users passes through the BRAS, and then reaches the egress network of the firewall

Internal and External VLAN

I have a Switch that needs to be able to separate Internal and External IP traffic for Firewall/VPN. SCENERIO: I have

Inter-VLAN Routing: Connect VLAN-to-VLAN Communication

This article provides a step-by-step walkthrough, including configuring VLANs on a Cisco switch, setting up trunk

InterVLAN Routing

InterVLAN routing means routing packets between VLAN. When we want to send packets from one VLAN to another, we need

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