

# Inter-VLAN communication of core layer switches



## Overview

In this lab, you will create VLANs on both switches in the topology, assign VLANs to switch access ports, verify that VLANs are working as expected, create VLAN trunks between the two switches and between S1 and R1, and configure Inter-VLAN routing on. In this lab, you will create VLANs on both switches in the topology, assign VLANs to switch access ports, verify that VLANs are working as expected, create VLAN trunks between the two switches and between S1 and R1, and configure Inter-VLAN routing on. InterVLAN routing means routing packets between VLAN. When we want to send packets from one VLAN to another, we need routing. Without routing, VLANs are isolated networks that can't communicate with each other. Routers or multilayer switches (Layer three switches) both allow us to route packets. In this lesson, we will learn to configure a multilayer switch (also called Layer 3 switch) to perform inter-VLAN routing, which was previously done using an actual router. That intern's DHCP request just hit the CEO's private printer. VLAN is the logical grouping of devices in the same or different broadcast domains. Cisco NX-OS (Nexus Operating System) is the software which is powering this new generation of switches and has many similarities (regarding

command structure etc) with the traditional IOS software which has been in production for decades.

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If you are working with a multilayer switch, the core idea is straightforward: build Switch Virtual Interfaces (SVIs), enable Layer 3 routing, and treat each SVI as the default gateway for its ...



Communication between VLANs requires a device operating at Layer 3 of the OSI model. Adding an inter-VLAN router allows the organization to segregate and separate broadcast ...



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In order to establish inter-VLAN communication (i.e routing between hosts belonging to different VLANs) you need to have a Layer 3 routing engine in the network. This L3 engine is provided by the Nexus ...



In this section, you configure inter-VLAN routing using Layer 3 switches. Modern enterprise networks rarely use router-on-a-stick because it does not scale easily to meet requirements. In these very ...



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.



The switches reference the destination MAC address of the incoming frame in the MAC table and forward the frames to the destination ports specified in the table.



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



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As the single broadcast domain is divided into multiple broadcast domains, Routers or layer 3 switches are used for intercommunication between the different VLANs. The process of ...



To configure multi-layer switch inter-VLAN routing on a Cisco device, in accordance with the diagram shown in Figure 3.0 above, use the IP addresses shown in Table 3.0 and follow the ...

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