Core switches can be configured with the same IP address



Overview

Best way to replace a core swicth with minimal down timeAs this is a replacement upgrade, both switches which are core switches will have the same IP addre.

Key Takeaways

Core switches can share the same IP address when configured for redundancy using protocols like HSRP or VRRP, but direct IP duplication without such protocols can cause conflicts.

Using the Same IP in Redundant Setups

In high-availability networks, two core switches can be configured with the same IP address through HSRP (Hot Standby Router Protocol) or VRRP (Virtual Router Redundancy Protocol). In this setup, both switches have the same Switched Virtual Interface (SVI) IP, but one switch is designated as active and handles traffic, while the other is standby and takes over if the active switch fails. Devices on the network use the virtual IP as their default gateway, ensuring seamless failover without IP conflicts during normal operation (Cisco Community).

Key Steps: Configure the same SVI IP on both switches. Set up HSRP or VRRP with priorities to determine the active switch. Ensure connectivity between switches via a dedicated link or shared VLAN.

Configure end devices to use the virtual IP as their default gateway. Layer 2 vs Layer 3 ConsiderationsIf switches are operating purely at Layer 2, their IP addresses are primarily for management purposes.

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Duplicate I

Ps on L2 switches generally do not disrupt normal traffic forwarding because Ethernet operates using MAC addresses, not IPs. However, direct management access to switches with duplicate IPs can be problematic, causing ARP table flapping or unreachable devices (ServerFault). On Layer 3 switches, IP addresses are used for routing.

Duplicate I

Ps without HSRP/VRRP will cause conflicts, making communication with those IPs unreliable. Proper configuration of unique management IPs or virtual IPs is essential to maintain network stability (ServerFault).

Risks and Best Practices

Avoid assigning the same IP to multiple switches unless using a redundancy protocol. For management purposes, ensure each switch has a unique IP to prevent conflicts. Use virtual IPs for gateways in redundant setups to provide seamless failover.

Monitor AR

P tables and network logs to detect potential IP conflicts. In summary, sharing an IP is safe and functional only in controlled redundancy scenarios like HSRP or VRRP. Outside of these protocols, duplicate IPs can lead to network instability, especially on Layer 3 networks.

Proper planning and configuration are critical to avoid conflicts while maintaining high availability.

Article Content

Best way to replace a core swicth with minimal down time

As this is a replacement upgrade, both switches which are core switches will have the same IP addresses configured on them. So far I have two options that come to mind and would like

Multiple switch devices with same gateway IP in one LAN

On the hosts that do attempt such communication, you may notice flapping entries in the ARP tables (the table that holds IP to MAC correspondences). That said, as a responsible network

Network setup for multiple devices with the same IP

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Switches are layer-2 devices that know nothing about layer-3 protocols, e.g. IP. If you want to change an IP address on packets, that is known as NAT (Network Address Translation), and you need to use

Configuring the Core Switch

In this scenario, IP addresses of the interfaces connecting the core switch to the BRASs and firewalls and OSPF need to be configured on the core switch, so as to implement connectivity

Configure Campus Fabric IP Clos | Mist | Juniper Networks

You can optionally configure IPv4 and IPv6 Anycast Gateway addresses in addition to any IPv4 or IPv6 subnets you have configured. The Mist UI uses those gateways as the Anycast IP address

CCNA RnS Article #20: Configure IP to Manage Switch

In a layer 2 switch scenario, if you want to send traffic to the internet, or some other network – you need the same “default gateway” IP address that we configure on a PC or Laptop.

Configuring Devices to Be Managed by the Controller (in the Hybrid ...

On a large or midsize campus network, switches running V600 (such as the S8700) can function as core switches and be deployed together with switches running V200 (such as the

Two-Tier Core

To establish a VSX relationship between the core switches, create a link aggregation (LAG) interface for assignment as the VSX data plane''s inter-switch link (ISL). The LAG can be

VLANs and Duplicate IP Addresses

I guess the first question of many, if an engineer hooks up a device in error, with a duplicate IP, but it is on a separate VLAN (but same switch), would this cause an issue?

QFX5200 Switch Datasheet | HPE Juniper Networking UK&I

Two QFX5200 switch models are available: QFX5200-48YEOL: A 10GbE/25GbE data center access switch that offers 48 small form-factor pluggable plus (SFP+) transceiver ports or SFP28 ports and

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Comptia A+ 220-1201 Core 1 Flashcards | Quizlet

Study with Quizlet and memorize flashcards containing terms like 2.1 A series of moving vans, 2.1 TCP and UDP, 2.1 TCP - Transmission Control Protocol Communication and more.

What Is Routing and Switching? A Quick Guide

Quick Answer: Routing and switching are the foundation of computer networking. Switching moves data between devices within the same local network using MAC addresses, while

What is a gigabit switch?

If the switch is connected directly to the destination device, the device accepts the data packet, responds, and the transmission is complete. If the device is connected to another switch, the next

Enterprise High-Availability: VRRP, MLAG & ECMP Explained

The Core Layer (ECMP): Deploy high-performance Huawei CloudEngine or Ruijie 800G core switches. Run OSPF/BGP with ECMP to ensure massive routing capacity and Active/Active pathing to your

Router (computing)

Larger networks commonly use multilayer switches, with layer-3 devices being used to simply interconnect multiple subnets within the same security zone, and higher-layer switches when filtering,

Legal and Compliance Requirements for Shared WiFi Infrastructure

Legal and Compliance Requirements for Shared WiFi Infrastructure This authoritative technical reference guide outlines the critical legal, regulatory, and architectural requirements for deploying

Why is our failover not happening when Core Sw1 loses power

Hello, Recently I''ve configured HSRP on our core switches. Because of the physical limitations of our fiber connections, we only have one trunk interface as the heartbeat interface between the two core

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This video was associated with the source search result. Verify technical details against current product documentation and project requirements.

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