

The core switch cannot connect to other VLANs after partitioning them



AI Overview

If a core switch cannot connect to other VLANs after partitioning, the issue is usually due to misconfigured VLANs, trunk ports, or missing routing information. Verify VLAN Configuration Ensure that all VLANs are properly created on the core switch and that each port is assigned to the correct VLAN. For access ports, confirm the configuration with commands like `switchport mode access` and `switchport access vlan X`. For trunk ports, verify that the trunk allows all necessary VLANs and uses the correct encapsulation (typically 802.1Q) with commands such as `switchport trunk allowed vlan` and `switchport trunk encapsulation dot1q`. Check Inter-VLAN Routing For devices in different VLANs to communicate, the core switch must have routing enabled. On Layer 3 switches, ensure that each VLAN has a Switched Virtual Interface (SVI) configured with the correct IP subnet and that the interface is up. Note that some switches, like HP Procurve, may not bring up a VLAN interface until a device is connected to that VLAN. Confirm that a default gateway exists and that static or dynamic routes are correctly configured so traffic can reach all VLANs. Inspect Trunk Links and Port Modes Trunk links between switches or between a switch and a router must be properly configured. Mismatched trunking types or missing VLANs on the trunk can block traffic. Verify that the trunk ports on both ends allow the same VLANs and that the encapsulation matches. If using a router-on-a-stick setup, ensure each router sub-interface has the correct VLAN tag and IP address. Validate IP Addressing Devices in each VLAN must have IP addresses within the correct subnet. Incorrect IP addresses or subnet masks can prevent inter-VLAN communication. Check that each SVI and host device has the proper IP configuration. Additional Considerations If using virtualized environments (e.g., ESXi), ensure that virtual port...

Article Content

Mastering VLAN Segmentation: Six Effective Methods

Workstations in the same VLAN, regardless of which switch they are actually connected to, communicate between them as if they were on separate

Fix VLAN Misconfiguration: Step-by-Step Guide

Incorrect VLAN settings can cause traffic disruptions, unauthorized access, and inefficient network performance. This guide will help you identify and fix VLAN misconfigurations, ensuring smooth

Troubleshooting Common VLAN and SVI Configuration

A VLAN is a subgroup within a switch that segregates network traffic, enhancing security and reducing collisions. An SVI is a virtual interface on a

Segmenting a Network Using VLANs

Switches with VLAN capability can assign the tagged frames to specific VLANs and therefore set up logically separated networks based on a shared infrastructure.

Troubleshooting VLANs & Trunks

This lesson explains the most common VLAN and trunking issues and how to fix them.
switch inaccessible when one VLAN added

Each of those access switches has the same several VLANs traveling over the uplinks. All the VLANs go out to the firewall, which is also a router-on-a-stick for internal security.

A sysadmin's guide to troubleshooting VLANs

An ARP entry also isn't populating for the host that you're trying to ping, so there's likely some kind of layer two issue, such as a VLAN configuration

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 between VLANs.

Cisco VLAN Troubleshooting Commands And VLAN Issues

This article offers practical tips and solutions for VLAN troubleshooting, including how to verify VLAN tagging, and check trunk ports. [Click here!](#)

How to Troubleshoot Common VLAN Interface Issues | NSC

Use the command line interface on your switches to check port status and VLAN membership. Examine Trunk Links: Ensure that trunk links between switches are properly configured

Troubleshooting VLAN and Switch Problems

Learn how to troubleshoot VLAN and switch problems in the first of this two-part series by Joe Rinehart. Video Tutorial.

Troubleshooting Common VLAN and SVI Configuration

One common issue is VLANs not propagating through the network as expected, often due to misconfiguration of VLAN Trunk Protocol (VTP) settings.

Common Problems with Inter-VLAN Routing and How to Fix Them

Troubleshoot common inter-VLAN routing problems with this guide. Learn to diagnose and fix issues like VLAN misconfigurations, trunk port errors, incorrect IP addresses, missing routes,

Fix VLAN Misconfiguration: Step-by-Step Guide

Incorrect VLAN Assignments – Devices assigned to the wrong VLAN cannot communicate properly. Trunk Port Misconfiguration – VLAN traffic fails to pass

Common Causes of Slow IntraVLAN and InterVLAN

For cut-through L3 switches, watch for underruns and, when you see them, check all ingress ports for errors. Software or Hardware

VLANs communication

Hello, By default in a L3 switch if you have "ip routing" enabled in the device all the vlans will have communication between them, if you want to add security you have to create ACLs in the

Inter-VLAN Routing | LogicMonitor

Learn why inter-VLAN routing is required, understand the different models used for implementing it, and follow examples to configure it.

[OpenWrt Wiki] VLAN

A VLAN -capable switch is an integrated version of an independent device called "managed switch". It is connected to an internal "ethernet" interface of your device, and it is more or

How to Troubleshoot Common VLAN Interface Issues | NSC

We've explored broad diagnostic tools and delved into specific troubleshooting methods tailored to resolve common problems such as connectivity issues, misconfigurations, incorrect VLAN

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 examples to help configure network efficiently.

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 have created a VLAN interface for each VLAN and assigned it an IP in

Contact Us

For more information, pricing, or custom solutions, please contact us:

Website: <https://www.sky-connect.co.za>

Email: info@sky-connect.co.za

Phone: +44 20 7946 0958

Address: 1 Cornhill, London EC3V 3ND, United Kingdom

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