Core switch unable to access external network



Overview

Network Switch Troubleshooting Guide: Common Problems and A comprehensive switch troubleshooting from the physical layer to the data link layer to the netw.

Key Takeaways

The core switch cannot access the internet because either inter-VLAN routing, NAT configuration on the firewall, or default gateway settings are missing or misconfigured.

Key Causes

Firewall NA

T and RoutingIf the core switch can reach the firewall but other VLANs cannot, the firewall must have NAT configured for all internal subnets and static routes back to each VLAN.

Without NA

T, devices behind the firewall cannot access the internet.

VLAN and Trunk Configuration

Ensure the interface connecting the core switch to the firewall is correctly configured. If using an access port, it should match the VLAN of the firewall interface. If using a trunk, VLAN tagging must be consistent on both sides.

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Misconfigured VLA

Ns can prevent traffic from reaching the firewall. Default Gateway on SwitchThe core switch must have a default gateway pointing to the firewall or router interface that connects to the internet. Without this, the switch cannot route traffic outside its local subnets.

Inter-VLAN RoutingIf multiple VLANs exist, the core switch must either perform Layer 3 routing between VLANs or rely on the firewall/router to route traffic. Missing routes can block internet access for VLANs not directly connected to the firewall.

DNS Configuration

Devices and the switch should have valid DNS servers configured. Using the firewall IP as DNS may work, but public DNS (e.g., 8. 8.

8. 8) is often more reliable.

Step-by-

Step Troubleshooting

Verify ConnectivityPing the firewall from the core switch. Ping the internet from the firewall to confirm external connectivity.

Check VLAN Assignments

Confirm that all VLANs on the core switch are correctly assigned and active. Ensure the firewall interface is in the correct VLAN or trunk configuration.

Check Routing

On the firewall, verify static routes exist for all internal VLAN subnets pointing to the core switch. On the core switch, ensure the default route points to the firewall.

Configure NAT

On the firewall, configure NAT for all internal VLANs to allow internet access.

Test Access

From a device in each VLAN, ping the firewall and then an external IP (e.g., 8. 8. 8.

8) to confirm connectivity.

Check Logs

Review firewall and switch logs for blocked traffic or misconfigurations.

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Additional Considerations

If the core switch is part of a stack or multi-switch environment, ensure VLANs and routing are consistent across all switches. Firmware or software mismatches can sometimes cause routing or VLAN issues; ensure the switch and firewall are running compatible versions. If the problem persists, consider temporarily connecting a single VLAN directly to the firewall to isolate the issue. By systematically verifying VLAN configuration, routing, NAT, and default gateways, you can restore internet access for the core switch and all connected VLANs.

Article Content

Network Switch Troubleshooting Guide: Common Problems and

A comprehensive switch troubleshooting from the physical layer to the data link layer to the network layer to find out why your network switch is not working.

Internet not reaching Core/Access Switch

when you ping 8.8.8.8 from 172.30.235.2 (the switch) and then issue the command ''show ip nat translation *" on the router, do you actually see an entry for 172.30.235.2 ?

Solved: can''t access internet via core switch

You need also to configure NAT for all internal subnets to allow them access to the Internet. Simply put the configuration on the core switch is correct and complete you need to

Internet not reaching Core/Access Switch

Corrected but still no internet access on Core Switch. You can use the “show ip nat” commands on the router to find out what is and is not working. do these tests on the router. After the

Fix Network Switch Failure: Step-by-Step Guide

Whether using a managed or unmanaged switch, diagnosing and fixing switch failures requires a structured approach. This guide will help you troubleshoot and resolve network switch failures,

Common Network Switch Issues & How to Fix Them

Learn how to spot, troubleshoot, and fix common network switch issues, from slow connections to VLAN errors, and keep your network running smoothly.

Why Can''t I Connect To The Internet Through A Network Switch?

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Having trouble connecting to the internet through a network switch? Learn about common issues and troubleshooting tips from our comprehensive guide.

How to Troubleshoot Network Switch Issues: 4 Common Failures

In this guide, we''ll explore four common network switch failures that you might come across: For each issue, we''ll provide practical troubleshooting steps that you can follow to restore

(Solved) Can''t access internet from LAN

Core switch is doing DHCP for all the subnets. I have a default route on the access switch that points to the core switch, and the default route of the core switch points to the interface IP on the

unable to ssh devices from core switch

When i remotely access the core switch and then from the core switch when i try to ssh other devices i am not able to do so. These devices are being authenticated using AAA. What can be

Solved: Can''t access core switch with http

Hi, the core switch has several VLANs. Let''s say the subnet of the management VLAN where all switches are located is 192.168.100.0/24. All VLANs on the core are separated in VRFs.

Troubleshooting virtual machine network connection issues

NOTE: If the virtual machine you are unable to reach is vCenter, it is generally best to open a Networking Support Case with Broadcom Support using the instructions at Creating and managing

Internet not reaching Core/Access Switch

Router has internet but Core Switch not picking, what i''m i missing? Router and Switch can ping each other Router Configs Router#sh run Building configuration... Current configuration :

Core Switch vs Access Switch | Definitions and Key Differences

We recommend checking the next-generation RG-S2910XS-E Series Switches from Ruijie Networks with Non-blocking wire speed and cutting-edge hardware. Conclusion To wrap up the topic

Solved: unable to reach server from core

Hi, it depends on what is your goal or what do you want to have reachable. Of course this route is not needed because it is pointing to your core switch. I wouldn''t want to make my core switc

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Router Can Access External LAN But Switch Cannot

Hi, I''m having trouble trying to get my switch to talk to an external network (192.168.1.0). Both my router and switch are on the 192.168.10.0 network. The 2800 series router is able to talk to

Accessing other switches from core switch

Everything is fine, clients get IP from DHCP on both switches. But I cannot access to second switch via management ip. I set ip routing, ip default gateway, trunk is fine etc. done

Ping Issues on Client and Access Switch

The only difference I see on the core switch is that there is an ACL that permits access from the VLAN we''re trying to ping from, but it''s set to ''ip access-group OUT'' and not ''IN'' as with

Related Video Reference

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

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This document is for preliminary research. Verify specifications against current standards, product documentation and project requirements.

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