Core ping fails to reach access switch gateway

Overview

In a nut shell, why can I ping a device at a school on the core switch but not on the switch the device is plugged into or anywhere else in our school district?

Key Takeaways

The core switch failing to ping the access switch gateway is usually caused by routing, VLAN, or interface misconfigurations between the core and access switches. Common Causes1. Default Gateway Misconfiguration If the access switch does not have a proper default gateway configured, it cannot route traffic back to the core switch.

Ensure the access switch has a ip default-gateway statement pointing to the core switch or Layer 3 gateway. 2.

VLAN or Trunk Issues

Verify that the VLAN of the access switch management interface is allowed on the trunk connecting to the core switch.

Ensure the VLA

N exists and is active on both switches. Check that the trunk ports are correctly configured and not in an administratively down state. 3.

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Layer 3 Routing ProblemsIf the core switch uses SVIs (Switched Virtual Interfaces) for routing, confirm that the access switch subnet is known to the core switch. On the access switch, static routes or default routes may be required if it cannot dynamically learn the path to the core. 4.

STP or Interface Forwarding Issues

Spanning Tree Protocol (STP) misconfigurations can block traffic. Check that the interfaces between core and access switches are in the forwarding state using show spanning-tree interface.

Ensure MST

P or other STP domains are consistent across switches. 5.

MAC Address Learning or Port Security

Sticky MA

C addresses or port-security settings on the access switch can prevent it from learning the core switch MAC, causing ping failures. Disable sticky MAC or verify port-security settings if applicable. 6.

AC

Ls or Firewall RulesAccess Control Lists (ACLs) applied inbound or outbound on the core or access switch can block ICMP traffic. Verify that no ACL is preventing pings from the core to the access switch gateway.

Recommended Troubleshooting Steps

Check Default Gateway: On the access switch, run show running-config and verify ip default-gateway is set correctly.

Verify VLA

Ns and Trunks: Ensure the management VLAN is allowed on the trunk and active on both switches. Use show vlan and show interfaces trunk. Check Routing: Confirm the core switch has a route to the access switch subnet and vice versa.

Use show ip route.

Inspect ST

P: Run show spanning-tree to ensure interfaces are forwarding. Check Port Security: Disable sticky MAC or verify MAC address learning on the access switch interface. Test Connectivity: Use ping with a source interface option to test from the correct VLAN.

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Review AC

Ls: Temporarily remove or adjust ACLs to allow ICMP traffic for testing. By systematically verifying these areas, you can identify whether the issue is routing, VLAN, STP, or MAC learning related and restore ping connectivity between the core switch and the access switch gateway.

Article Content

Re: Core switch to Access switch ping issue

If the only problem appears to be pinging the 2961, itself, ping response is considered a low priority task on Cisco network devices, and as such, the switch may ignore some or all ping

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

A device can be pinged from core switch (router) but not the switch it ...

In a nut shell, why can I ping a device at a school on the core switch but not on the switch the device is plugged into or anywhere else in our school district?

Unable to ping a vlan gateway on core switch from the switch

I cant ping the vlan 35 gateway on the core switch but I can ping it on our wifi on a different vlan? It happens to be our security camera vlan. Any thoughts are appreciated. Are there any ACLs

Troubleshooting virtual machine default gateway connection issues

If all VMs in the same subnet and on the same host have an issue reaching the default gateway, check the VLAN configuration on the port group and ask your network team to also check

PC cannot Ping gateway successful

Ping from PC to access switch and core switch,ping successful□ping gateway failed Do traffic statics on the core switch,we found that there is no ping packet received from the Eth-trunk BB

Can''t ping default gateway IP address

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The client can''t access the internet. For troubleshooting, we ask her to ping default gateway, for example, ping 192.168.1.254. She gets general failure. What we have done: run netsh to

Able to ping core but not seen at firewall. New vlans

Can you ping your defaut gateway? Sounds like either your default route to the firewall is not correct or being overridden by a more specific route. I would mirror a port on the core grab some packet captures.

Unable to ping switch : r/Cisco

Is the server you are trying to ping the switch from on the same VLAN? If it''s not, then unless the switch has a way to route inter-VLAN traffic, you''re not going to be able to ping it.

Solved: Can''t ping the default gateway

The server is directely connected to the switch port fastethernet 1/0/1 and there''s a trunk from the switch to the router port fastethernet 1/0/24. And the test ping fails:

Switch cannot ping default gateway

I connected a Cisco C3650 switch (port 0/1) to a firewall LAN interface (ip: 192.168.19.2), which is also the default gateway of the switch. Here is the partial config of the switch: (a complete

Solved: PCs Cannot Ping Default Gateways

Solved: Hi all, I have a network that has 1 router, 3 switches, and 3 PCs, as per the photo attached. My issue is that I have my PC-A that can ping the default gateway. that is a sub interface

Cannot ping an IP from Core Switch, but can do it from my PC

172.16.32.1 is the gateway for your subnet but probably isn''t the ip address your core is attempting to ping from. I''m guessing your core switch is attempting to ping from a subnet not allowed across the

Troubleshooting virtual machine default gateway connection issues

Have your network team check the VLAN configuration for both vmnics on the physical switch. If the VMs are using the same vmnic, yet one can ping the gateway and the other cannot ping

Unable to get internet to core switch from firewall

I have then set the firewalls address as the default gateway as well on the switch. I can ping the VLAN I created, I can ping the firewalls address from other hosts on the network but for

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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 :

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