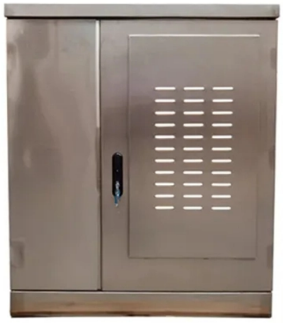
Packet loss when pinging gateway from access switch



Overview

Devices lose connectivity every few minutes for a few secondsReenable portfast on all access ports, and append some L2 security (storm control/port securit.

Key Takeaways

Packet loss when pinging a gateway from an access switch can result from physical layer issues, switch management interface limitations, or ICMP de-prioritization, and requires systematic isolation to identify the root cause. Common Causes1. Physical Layer Issues (Layer 1): Packet loss can occur due to faulty cables, bad SFPs, or mismatched duplex/speed settings between the switch and the gateway.

Even if the switch and gateway ports are capable of higher speeds, auto-negotiation mismatches can cause intermittent drops. 2. Switch Management Interface Limitations: When pinging from a switch's management IP (SVI or dedicated management interface), some switches may de-prioritize ICMP responses under load.

This can result in apparent packet loss even if normal traffic is unaffected. Control Plane Policing (CoPP) or CPU congestion can also cause ICMP replies to be dropped while regular traffic passes normally. 3.

Layer 3 or Routing Issues: If the gateway is a Layer 3 SVI on a core switch, packet loss may indicate congestion or misconfiguration on the SVI interface.

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High CP

U utilization on the gateway device can also lead to dropped ICMP replies. 4.

Monitoring and ICM

P Behavior: Some firewalls or gateway monitoring daemons may ping the gateway periodically.

ICM

P packet loss observed in these tests may not reflect actual traffic loss but rather the device's prioritization of ICMP over production traffic.

Troubleshooting Steps

Verify Physical Connectivity: Check cables, SFPs, and port status. Ensure speed and duplex settings match on both ends. Test from Multiple Sources: Ping the gateway from a PC in the same subnet as the switch to see if packet loss is consistent.

Compare results with pings from the switch management interface. Check Switch and Gateway Interfaces: Use show interface commands to check for errors, drops, or collisions.

Review CP

U utilization and CoPP policies that may affect ICMP. Capture Traffic: Perform a packet capture on the switch uplink to the gateway to confirm whether ICMP requests and replies are being transmitted and received. Isolate the Issue: If packet loss occurs only from the switch management interface, it may be normal behavior under load.

If packet loss occurs for all traffic, investigate Layer 1 or Layer 3 issues. Key ConsiderationsICMP vs. Actual Traffic: Packet loss observed via ping does not always indicate real network issues; production traffic may be unaffected.

SV

I Load: High utilization on a Layer 3 SVI can cause ICMP drops without affecting routed traffic. Consistent Loss: Persistent loss across multiple devices and interfaces usually points to physical or configuration issues. By systematically isolating the problem—starting from physical connections, then interface configurations, and finally ICMP behavior—you can determine whether the packet loss is a true network issue or a result of switch/gateway management behavior.

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Article Content

Devices lose connectivity every few minutes for a few seconds

Reenable portfast on all access ports, and append some L2 security (storm control/port security/dhcp snooping) this should negate any unwarranted attachment of switch devices, BUM

Troubleshooting Packet Loss Between Devices

This article covers troubleshooting packet loss on Cisco Meraki networks. Use ping, traceroute, MTR, and packet captures to isolate whether loss occurs on routed links, WAN uplinks, or

Packet loss while ping from directly connected switch

I have seen issues such as this a few times on Management SVI interfaces of network switches and I do not believe it is anything worth worrying about. However if it is something

Inter-Vlan packet loss on subnet gateway

I cannot understand how my gateway is losing packets while an device which IP address routes traffic through the same gateway is not. And what explains the time in milliseconds are 100

Troubleshooting Cases for Packet Loss on the Network

Case Study: Packet Loss Occurs When the Number of Packets from the Access Switch to the Aggregation Switch Is Greater Than the Number of Packets Received by the Access Switch from the

Using the Ping Live Tool

The results section displays the percentage of packets lost, average latency, and a graph of latency to the device while the test is running . If the Ping tool reports 100% packet loss, either the

Packet loss is observed when pinging the Default Gateway

Action: This indicates the ICMP Request packet successfully left the ESXi host but either the ICMP Request was dropped before it reached the default gateway or ICMP Reply was dropped

How can I track down the cause of latency on the internal network ...

Recently, we''ve had some complaints about slowness accessing some resources in our virtualized environment. This has caused me to take a good look at our network and I''ve discovered

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Manages switches causing packet loss? : r/networking

Any time your spanning tree has to reconverge, you''ll get packet loss. Spanning tree is not great as a method of redundancy, it''s more meant to protect against someone taking the whole network down

Case Study: An Access Switch Cannot Ping the Gateway When the

In this mode, unknown unicast packets are forwarded to the upstream cards in route selection based on the Eth-Trunk hash algorithm, so the hash key values are consistent and excess packets or packet

Solved: Packet Tracer problem with ping

Hello Cisco community, I am having a problem with pinging between PCs, i have created my VLANs and assigned IPs and Gateways and done intervlan routing and everything seems right,

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

How To Ping The Gateway, Analysis Of Reasons Why

(5) Too impatient. That is, trying to ping the gateway as soon as the network cable is plugged into the switch, ignoring the spanning tree convergence

How can I track down the cause of latency on the

Our network is very simple. We have a small server room with two core switches that have fiber links to our access switches in our different

EOS 4.36.0F

Standard software upgrades and downgrades on Arista switches are accomplished by installing a different EOS image and reloading the switch. On switches with redundant supervisors, you must

Dropping packets on specific VLAN only : r/networking

It only does this from devices that are in VLAN 100. If i take a test laptop, plug it into one of our Rack Switches (Cisco 3650) and put it on VLAN 100, i get the packet loss i described above. If i switch that

Inter-Vlan packet loss on subnet gateway

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I manage a Wide Area Network with 50 + subnets all connected through Intern Vlan Routing via Layer 3 switched virtual Interfaces (SVI) on a Core 6800 L3 switch. I am experiencing

Can not ping from vlan A to vlan B (switch/router)

Hey guys, I have a Cisco Catalyst C3750-24TS Switch and a Cisco 891-W Router, and I am unable to communicate from one VLAN to another. This is my first time configuring a switch and

Related Video Reference

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

Contact Us

Continue your research online:

Website: https://cgweb.co.za
Technical inquiry: https://cgweb.co.za/project-enquiry.html

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

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