

How to mirror core switches



Overview

To configure port mirroring on a device, perform this procedure. Enables privileged EXEC mode. Enter your password, if prompted.

Key Takeaways

Port mirroring on core switches allows you to copy traffic from one or more source ports to a designated destination port for monitoring and analysis. Understanding Port Mirroring

Port mirroring, also called SPAN (Switched Port Analyzer) on Cisco devices, is a technique that replicates network traffic from source ports or VLANs to a destination port where a monitoring device, such as a network analyzer or intrusion detection system, is connected . It supports:

- Ingress mirroring: Copies incoming traffic to the destination port.
- Egress mirroring: Copies outgoing traffic to the destination port.
- Local mirroring: Source and destination ports are on the same switch.
- Remote mirroring: Source and destination ports are on different switches, often using a remote session .

Steps to Configure Port Mirroring on Core Switches

- Verify Capabilities: Ensure your core switch supports port mirroring and check the maximum number of sessions and destination ports .

- **Identify Source Ports or VLANs:** Determine which ports or VLANs you want to monitor. Core switches often handle multiple VLANs, so you may need classifier-based policies to select specific traffic .
- **Select Destination Port:** Choose a port where the monitoring device will be connected. Note that this port cannot be used for normal network traffic while mirroring is active .
- **Configure the Mirroring Session:**
 - On Cisco switches, for example:

`monitor session 1 source interface gigabitEthernet1/1/1`
`monitor session 1 destination interface gigabitEthernet1/1/2` This sets up session 1 to mirror traffic from the source port to the destination port .

- On Aruba or Extreme Networks switches, you may configure local or remote mirroring sessions and apply classifier-based policies to filter traffic by VLAN, IP, or protocol .
 - **Apply Filters (Optional):** For large core switches, you can filter mirrored traffic by protocol, IP address, or VLAN to reduce the volume sent to the monitoring device .
 - **Verify Configuration:** Use commands to display active mirroring sessions and ensure traffic is being mirrored correctly. For Cisco, `show monitor session` displays session details .
- Best Practices**
- **Avoid Mirroring All Traffic:** Mirroring all ports on a core switch can overwhelm the monitoring device and impact switch performance.
 - **Use Remote Mirroring for Distributed Networks:** If monitoring traffic from multiple switches, configure remote mirroring endpoints to centralize traffic collection .
 - **Monitor Both Ingress and Egress if Needed:** Some troubleshooting scenarios require observing both incoming and outgoing traffic .
 - **Document Sessions:** Keep track of session numbers and destination ports to prevent conflicts, especially in multi-switch environments . By following these steps, you can effectively mirror traffic on core switches for network analysis, security monitoring, and troubleshooting without disrupting normal operations.

Article Content

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L3 switch is core switch and existing Firewall LAN interface connected with this switch port no.2 L2 switch is connected

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Mirroring a port on a Cisco switch is easy to do. First, access the switch Dashboard and navigate to Switch > Monitor

Solved: Port Mirroring on MS Switches

Hi, I have a client that wants to collect internal data on a internal switch stack and mirror that to an security appliance

Mirroring Switches?

You want one switch to control multiple other switches and/or commands. You have a multi relay device and want to

Traffic mirroring on AOS-CX Switches

Want to understand how to capture and analyze network traffic on ArubaOS-CX

How to Mirror Network Traffic for Intrusion Detection | Switch ...

In this video, I'll guide you through the step-by-step process of mirroring network traffic

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Port Mirroring on Switches – The Cybersecurity Man

Modern switches have a lot of cool, useful features that make these devices simple to manage, but perhaps, more

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Mirroring configuration examples

Mirroring configuration examples Local mirroring using traffic-direction criteria An administrator wants to mirror the inbound traffic

Use RSPAN to mirror traffic from remote switches

Remote Switched Port Analyzer (RSPAN) allows you to mirror traffic from remote switches for analysis on a local destination port.

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Solved: Replace Core Switch

Hi I am wondering how most people go about this. If I was replacing a core switch, how would you guys recommend I

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AdditionalInformationonTrafficMirroring Traffic Mirroring Terminology

- IngressTraffic—Trafficthatcomesintotherouter.

Understanding Core Switch: What It Is and How to Choose the

A core switch is not merely a type of switch but rather denotes the switch that operates at the core layer (the network's

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