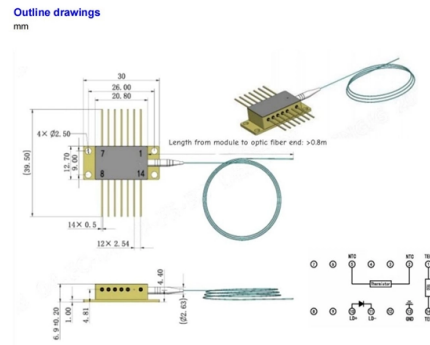


Core Switch Traffic Monitoring Mirroring



AI Overview

Traffic mirroring on core switches allows network administrators to replicate traffic from one or more source ports or VLANs to a designated destination port for analysis without affecting normal network operations.

Overview of Traffic Mirroring

Traffic mirroring, also known as port mirroring or SPAN (Switched Port Analyzer), is a method to monitor network traffic in real-time by copying packets from source ports or VLANs to a destination port connected to a monitoring device, such as a packet analyzer or intrusion detection system. This process is non-intrusive and does not disrupt the normal flow of traffic.

Types of Traffic Mirroring

Local SPAN (Port Mirroring): The simplest form where the source and destination ports reside on the same switch. It is ideal for small networks or single-switch environments. Administrators can choose to mirror ingress (incoming), egress (outgoing), or both directions of traffic.

Remote SPAN (RSPAN): Extends mirroring across multiple switches within a Layer 2 network. Mirrored traffic is sent through a dedicated VLAN (RSPAN VLAN) to a destination port on a different switch, enabling centralized monitoring.

Encapsulated Remote SPAN (ERSPAN): Uses GRE encapsulation to mirror traffic across Layer 3 networks, allowing monitoring across routed boundaries. This is useful for enterprise networks where the monitoring device is not on the same subnet as the source.

SPAN to File: Some switches allow mirrored traffic to be written directly to a file for later analysis, which is useful for offline packet inspection.

File Mirroring: Automatically copies files or directories from one location to another on the switch for monitoring purposes, often used in standby or redundant systems.

Configuration Considerations

Source Ports: A session can include up to 100 source ports, and traffic can be mirrored from Layer 2 or Layer 3 interfaces.

Destination Port: Each session must have a single destination port, which can only participate in one mirroring session at a time. For local mirroring, the destination port must reside on the same switch as the source ports.

Session Li...

Article Content

How Traffic Mirroring works

Traffic Mirroring copies inbound and outbound traffic from the network interfaces that are attached to your instances. You can send the mirrored traffic to the network interface of another

Mirroring configuration examples

Mirroring configuration examples Local mirroring using traffic-direction criteria An administrator wants to mirror the inbound traffic from workstation "X" on port A5 and workstation "Y" on port B17 to a traffic

Switch Port Mirroring Explained: What is Mirror Port in Switch?

Ethernet switch port mirroring is more than traffic duplication—it is a core tool for network management and security monitoring. Selecting the appropriate network switch port mirroring type

Switch Port Mirroring Techniques – Traffic monitoring (Network switch)

At its core, switch port mirroring is a feature offered by managed network switches that allows administrators to create a copy of network traffic from one or more switch ports and forward

Port mirroring

Port mirroring is used on a network switch to send a copy of network packets seen on one switch port (or an entire VLAN) to a network monitoring connection on another switch port.

How to Monitor Network Traffic Using Cisco's SPAN Ports

Learn how to leverage SPAN ports on your Cisco 9300 switch to monitor and manage network traffic effectively. Discover configuration tips, p...

Port Mirroring Explained: How Network Traffic Analysis Works

Port mirroring sends duplicate packets from switch ports to local or remote analyzers, helping network admins monitor, debug, and diagnose traffic issues.

SPAN Session or Port Mirroring

About SPAN Sessions The Switched Port Analyzer (SPAN) or Port Mirroring feature helps you analyze network traffic passing through interfaces or VLANs by using SPAN sessions. The SPAN sessions

Configuring Traffic Mirroring

- Layer 2 or Layer 3 traffic mirroring:BothLayer2andLayer3sourceportscanbemirrored.
- ACL-based traffic mirroring:TrafficismirroredbasedontheconfigurationoftheinterfaceACL.

Configure Catalyst Switched Port Analyzer (SPAN):

The SPAN feature, which is sometimes called port mirroring or port monitoring, selects network traffic for analysis by a network analyzer. The

Port Mirroring: Monitoring Network Traffic

Remote Port Mirroring When monitoring across switches, this approach forwards copies through multiple devices. It extends visibility but

How to setup Switched Port Analyzer (SPAN) on Cisco switches

You can analyze network traffic passing through a port by using SPAN (Switched Port Analyzer), sometimes called port mirroring. This allows you to copy traffic as it moves to one port and

Top 5 Ways to Get a Network Traffic Source on Your Network

If you need east-west as well as north-south network visibility, check out SPAN or port mirroring off your core switch. Without any downtime or making any major changes to your network,

Working With Port Mirroring

Port mirroring is used on a switch to send a copy of packets seen on one switch port (or an entire VLAN) to a monitoring connection on another switch port. Port mirroring is used to analyze and debug data

Network Tap vs Port Mirroring | Corning

There are two technologies currently being used in network monitoring systems—SPAN (switched port analyzer) also known as port mirroring and a network tap (traffic access point).

Configure mirroring with a switch SPAN port

This article describes how to configure a SPAN port for traffic mirroring when monitoring OT networks with Microsoft Defender for IoT.

Traffic mirroring overview

The mirroring of selected traffic to an external device makes it easier to diagnose a network problem from a centralized location in a topology spread across a campus.

How to Configure Port Mirroring on Cisco Switch

Port mirroring is an essential feature of Cisco switches that allows network administrators to monitor the traffic that is passing through their network. This

Configuring Traffic Mirroring

A monitor session is a collection of traffic mirroring configurations consisting of a single destination and, potentially, many source interfaces. For any given monitor session, the traffic from the source

Mirror Port on Core Switch not seeing other traffic from edge switches

We have created a Mirror (Span) port on our Core switch in order to see all traffic on the network, however, we are actually only seeing very little traffic. I would say only about 10-15 percent

Get started using Traffic Mirroring to monitor network traffic

To get started using Amazon VPC Traffic Mirroring, you'll need a VPC with at least one elastic network interface (ENI) that you want to mirror traffic from. In this section, you'll create a traffic mirror target

Chapter: Configuring Traffic Mirroring

Switched Port Analyzer (SPAN), which is also called port mirroring, or traffic mirroring enables you to monitor network traffic passing in, or out of, a

What Is Port Mirroring? How It Works and Why It Matters

Port mirroring, a function built into modern switches, provides precisely this capability by copying data from specific ports or VLANs to a single

Mirroring configuration examples

Because the switch provides both the source and destination for the traffic to monitor, local mirroring can be used. In this case, the command sequence is: Configure the local mirroring session, including the

Using VPC Traffic Mirroring to monitor and secure your AWS ...

Conclusion VPC Traffic Mirroring gives you deeper visibility into your AWS infrastructure. It does so by providing you with an agent-less method to acquire network traffic from/to Amazon

Contact Us

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