

Port Mirroring Splitter Principle



AI Overview

Port mirroring works by duplicating network traffic from a source port to a designated destination port, allowing monitoring without interrupting normal network flow.

Principle of Port Mirroring

Port mirroring, also known as SPAN (Switched Port Analyzer) in Cisco terminology, is a method used to copy packets from one or more source ports to a destination port for analysis or monitoring without affecting the original traffic flow. The switch or router is configured to replicate the traffic, effectively acting as a software-based splitter. Unlike a physical network TAP, which passively splits signals at the hardware level, port mirroring relies on the device's internal logic to duplicate packets.

How It Works

- **Source Port Selection:** The administrator selects one or more ports whose traffic needs to be monitored. This can include ingress (incoming) traffic, egress (outgoing) traffic, or both.
- **Destination Port Assignment:** A specific port is designated as the monitoring port. All mirrored traffic is sent to this port, where a monitoring device or packet analyzer (e.g., Wireshark) can capture and analyze it.
- **Traffic Duplication:** The switch internally duplicates the packets from the source port(s) and forwards the copies to the destination port. The original traffic continues to its intended destination without interruption.
- **Filtering Options:** Many switches allow selective mirroring, such as filtering by VLAN, MAC address, or IP address, so only relevant traffic is copied

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By understanding the principles and applications of port mirroring, organizations can better optimize their network

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What Is Mirroring? Mirroring allows packets from a specified source to be copied to a destination port without affecting

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Network switch port mirroring, however, can have a negative performance impact on the switch itself, sometimes

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The port mirroring feature can provide the configuration required by this application. Netvisor ONE supports three distinct port

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

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Principle of port mirroring. | Download Scientific Diagram

The port used for output of the duplicated traffic is usually called mirror port or SPAN port (Switched Port Analyzer). Figure 2 shows

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011258_930678F_2-Port_PoE_Gigabit_Port_Mirroring_Switch

The CyberData 2-Port PoE Gigabit Port Mirroring Switch enables users of a network attached device to split a single 802.3af or

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SN75DP128A: Split one port into two screens and display a mirror ...

There are two methods I'm currently considering. 1. Split with a splitter IC. 2. Use two ICs such as a Redriver or

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Definition of port mirroring | PCMag

What does port mirroring actually mean? Find out inside PCMag's comprehensive tech and computer-related encyclopedia.

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FS Community

Hier sollte eine Beschreibung angezeigt werden, diese Seite lässt dies jedoch nicht zu.

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What is Port Mirroring? Purpose, Benefits, Setup, and Beyond

While port mirroring duplicates every packet that comes across the interface to the monitoring device, traffic mirroring

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PORT MIRRORING OVERVIEW

PORT MIRRORING OVERVIEW Port Mirroring, also known as SPAN (Switched Port Analyzer), is a method of monitoring network

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Port mirroring is an important switch technology. Learn about port mirroring's definition, advantages, FAQs and how to configure port

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Port Mirroring duplicates Ethernet packets from a selected source port to a designated destination port without

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Port mirroring copies network traffic for analysis without affecting live data. See how it aids

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PASSIVE OPTICAL SPLITTER

Before large-scale deployments of FTTx, most splitter modules and other passive optical components were installed in central offices

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