Full-process switch access ports



Overview

Ethernet Switch Port Types Explained: Access, Trunk, SFP, QSFPExplore all Ethernet switch port types including access, trunk, hybrid, SFP, SFP+, QSFP, QSFP.

Key Takeaways

Access ports on a full-process switch connect end devices to a single VLAN, handling untagged traffic and operating in access mode by default.

Definition and Function

An access port is a switch interface that connects end devices such as desktops, laptops, servers, or printers to the network. It is dedicated to a single VLAN, meaning all traffic entering or leaving the port is associated with that VLAN. Access ports send and receive untagged Ethernet frames, and any frames that do not belong to the configured VLAN are discarded.

This ensures that devices connected to access ports are isolated to their assigned VLAN, maintaining network segmentation and security.

Characteristics

Default Mode: Access mode is the default operating mode for most Layer 2 switch ports.

VLA

N Association: Each access port is tied to a single VLAN, which is configured on the switch. It does not carry traffic for multiple VLANs like trunk ports. Frame Handling: Access ports do not use 802.

© 2026 CGWEB NETWORK INFRASTRUCTURE - All rights reserved

1Q tagging for outgoing frames; they transmit untagged frames within the VLAN.

No SV

I Requirement: Access ports can operate without a Switch Virtual Interface (SVI) configured, unlike routed ports.

Physical Interfaces

Access ports can be implemented on various physical interfaces depending on the switch model: RJ45 Copper Ports: Common for 100 Mbps to 1 Gbps connections using Cat5e, Cat6, or Cat6a cables. SFP/SFP+ Ports: Used for fiber connections or uplinks, supporting 1 Gbps to 10 Gbps speeds.

Po

E Ports: Some access ports provide Power over Ethernet to connected devices like IP phones or wireless access points.

Use in Full-

Process Switching

In a full-process switch, packet forwarding is handled by the CPU rather than hardware-based ASICs. Access ports in this context still perform the same VLAN-specific forwarding, but the switch processes each frame in software, allowing for advanced features like detailed packet inspection, policy enforcement, or complex routing decisions. This makes access ports on full-process switches suitable for environments requiring flexible traffic management and enhanced security.

Summary

Access ports are essential for connecting end devices to a network while maintaining VLAN isolation. They operate in access mode by default, handle untagged traffic, and are associated with a single VLAN. On full-process switches, these ports provide the same connectivity but with the added capability of software-based packet processing for advanced network control.

© 2026 CGWEB NETWORK INFRASTRUCTURE - All rights reserved

Article Content

Ethernet Switch Port Types Explained: Access, Trunk, SFP, QSFP

Explore all Ethernet switch port types including access, trunk, hybrid, SFP, SFP+, QSFP, QSFP28, PoE, and stack ports. Learn their functions, speeds, and best use cases for optimized

Ethernet Switch Port Types: Architecture, Speeds,

This guide delivers an engineering-focused overview of switch port technologies, practical deployment mapping, and a detailed selection methodology for campus,

A Comprehensive Overview of Ethernet Switch Port Types

This guide explains Ethernet switch port types including RJ45, SFP/SFP+, SFP28, QSFP+/QSFP28, combo, stack, PoE, access, trunk, and

Configuring Access and Trunk Interfaces

To optimize the performance on access ports, you can configure the port as a host port. Once the port is configured as a host port, it is automatically set as an access port, and channel

Access Port vs Trunk Port: The Ultimate Guide to VLAN Modes

What Is an Access Port? An access port represents the extreme edge of your enterprise network. Its primary design principles are simplicity, isolation, and security. Topologically, access

Ethernet Switch Port Types Explained 2026: RJ45, SFP, QSFP+ & More

This guide provides an engineering-level overview of switch port technologies, real-world deployment mapping, and detailed selection methodology for campus, enterprise, and data center

Cisco Catalyst 1200 Administration Guide

The Port Settings page displays the global and per-ports settings of all the ports. Here, you can select and configure the needed ports from the Edit Port Settings page.

Access and Trunk Ports

Access ports are used to connect end devices, such as PCs, printers, and servers, to the switch. These ports are simple to configure and provide a direct connection to the network.

Switch Ports

© 2026 CGWEB NETWORK INFRASTRUCTURE - All rights reserved

On the Switching > Monitor > Switch Ports page, administrators can name ports, turn ports on/off, enable spanning tree (RSTP), define port types (access/trunk), and specify VLANs (data

Switch Capacity vs Forwarding Rate vs Bandwidth Explained

Explore the critical distinctions between switching capacity, forwarding rate, and bandwidth in network switches. Understand how they impact your network.

A Comprehensive Overview of Ethernet Switch Port Types

Confused about SFP, QSFP, or combo ports? This guide explains Ethernet switch port types including RJ45, SFP/SFP+, SFP28, QSFP+/QSFP28,

Configuring Access and Trunk Interfaces

Configuring Access and Trunk Interfaces Ethernet interfaces can be configured either as access ports or trunk ports. Trunks carry the traffic of multiple VLANs over a single link and allow you to extend

Configuring Access Control Lists

Information About ACLs An access control list (ACL) is an ordered set of rules that you can use to filter traffic. Each rule specifies a set of conditions that a packet must satisfy to match the rule. When the

8 Steps to configure your network switch

So, before you add your switch to the network, you''re going to want to set its revision number to zero. To easily reset the domain back to zero, change the config mode to transparent: Step 4: Configure

Configuring VLANs on Cisco Switches

Master configuring VLANs on Cisco switches. Learn to configure Access and Trunk ports, and Native VLANs and Allowed VLAN Lists. Learn to verify with show commands.

Network switch

Network switch Avaya ERS 2550T-PWR, a 50-port Ethernet switch A network switch (also called switching hub, bridging hub, Ethernet switch, and—by the IEEE — MAC bridge) is networking

How to configure the ports of a Cisco switch, whether

Read on to learn how. Access ports and trunks: everything you need to know about how they work. When configuring a Cisco switch, it''s important to understand the

Mastering Switch Port Configuration: Avoiding Common Pitfalls in ...

© 2026 CGWEB NETWORK INFRASTRUCTURE - All rights reserved

Introduction: Why Switch Port Configuration Matters In modern enterprise networks, switches form the backbone of connectivity and overall network performance. While IT teams often

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.

© 2026 CGWEB NETWORK INFRASTRUCTURE - All rights reserved