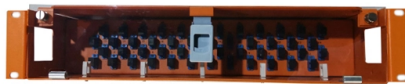


What happens when a switch connects to two network segments



Overview

When different servers or storage devices are in different network segments, the switch connects these segments to realize the rapid exchange of data between servers or storage devices, thus meeting the high-speed transmission requirements of the data center network. Where two or more Cisco switches are connected to a single common switch, each has a VLAN interface configured with a different ip network and with no further configuration or a router, they are able to ping each other. Additional support information - please understand points 1 and 2 explained. Layer 2 switches work at the data link layer and forward data frames based on MAC addresses, and they must use routers to realize the interconnection between different network segments. A computer (Node A) on the first segment (Segment A) sends data to a computer (Node B) on another segment (Segment C). It is responsible for filtering and forwarding the packets between LAN segments based on MAC address. IPs are manually assigned in the range of 192.



Article Content

Sep 04, 2025

What is a Network Switch and How Does it Work?

The Switch is a network device that is used to segment the networks into different subnetworks called subnets or LAN segments. It is responsible for

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Communication through Multiple Switches

Communication through multiple switches is similar to communication through one switch. This article illustrates exactly how it works using two switches.

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Fundamentals of communication between two different

Where two or more Cisco switches are connected to a single common switch, each has a VLAN interface configured with a different ip network and with no further

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Learn how network bridges connect segments, reduce collision domains, and forward traffic using MAC addresses. Complete guide for IT professionals.

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Network Coverage Range: Cascading switches can significantly expand the network coverage range. For example, in a twisted-pair network, the diameter of a network covered by a

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Network Segmentation

Internal networks often remain flat, so if an attacker bypasses the firewall, they can move laterally with little resistance. 2. Virtual Segmentation

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Level 2 Routing: LAN Bridges and Switches

Bridges and switches perform functions somewhat similar to routers, but they operate at the data-link level (Level 2 in the seven-layer model), in contrast to the network level (Level 3) used by routers.

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Can Switches Interconnect Different Network

When different servers or storage devices are in different network segments, the switch connects these segments to realize the rapid exchange of

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How Does a Switch Work?

Switches are key network building blocks. Learn how does a switch work to securely connect your small business to the rest of the world and connect your devices.

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Understanding Ethernet LAN Segmentation

LAN Segmentation Overview Network segmentation is the terminology used to describe the process of dividing single Ethernet segments into multiple segments.

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Networking Basics

Segment - A segment is any portion of a network that is separated, by a switch, bridge or router, from other parts of the network. Backbone - The backbone is the main cabling of a network that all of the

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How to connect two different network segments using a

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Network segment

A network segment is a portion of a computer network. The nature and extent of a segment depends on the nature of the network and the device or devices used to interconnect end stations.

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Two hosts of different subnets connected to switch

Two host of different subnets, let it be A - 10.1.2.1/24 and B - 10.1.3.1/24 be connect to the same switch S. Can they communicate? So as far I understand: A sends a packets with IP of B S

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What is a network switch? | Switch vs. router

What is a network switch? A network switch connects devices within a network (often a local area network, or LAN *) and forwards data packets to and from those

Feb 03, 2026

Fundamental Concepts Fu

cted to the network. While a node is typically a computer, it can also be something like a pri Segment - A segment is any portion of a network that is separated, by a switch, bridge or router, from other parts

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Transparent Bridging: The Process

The switch is added to the network, and the various segments are plugged into the switch's ports. A computer (Node A) on the first segment (Segment A) sends data to a computer

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What Is Network Switching?

What is a switch? A switch is a hardware component in network infrastructure that performs the switching process. The switch connects network devices, such as

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What is a Network Switch? | Explained Working, Types

Unlock the power of network switches with this in-depth whitepaper. Know the Types of Network switches, Architecture, and guidelines to choose suitable switches for

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Understanding Ethernet LAN Segmentation

You can use a network switching technology to provide LAN segmentation features. LAN switches can assist in increasing bandwidth availability for workstations because LAN switches support

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What is a network switch and how does it work?

Switches connect network segments, providing full-duplex communication, valuable network performance data and efficient use of network bandwidth.

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Understanding Network Switch Connection Diagrams: A

Learn about network switch connection diagrams and how they can help you understand the layout of your network and troubleshoot issues.

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Ethernet Switching

Whereas a bridge usually has a single port in and a single port out that connects two segments together, a switch has many ports, with devices attached to each port.

Oct 30, 2025

networking

You have your wifi router connected via the WAN port to the switches. This configuration puts all wifi (and other traffic plugged into the wifi device's LAN ports) to be behind the IP address translation and

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Can Switches Interconnect Different Network

Layer 2 switches work at the data link layer and forward data frames based on MAC addresses, and they must use routers to realize the

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How does a network bridge function?

A network bridge connects multiple network segments, allowing them to communicate as if they were a single network. A network bridge, also known as a bridging hub, switch, or switching hub, is a device

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two different networks through one switch

I am trying to solve an issue where I need two different networks/subnets communicating between my Juniper firewall and my Cisco 2950 switch. On the firewall I took two ports and split them

Contact Us

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