How to configure a Cisco core switch



Overview

Looking to configure a Cisco switch for the first time? If the answer is YES, you''re in the right place. In this post, I''m going to show you how to configure a Cisco switch step-by-step.

Key Takeaways

Configuring a Cisco core switch involves connecting via console, setting up management access, defining VLANs, securing ports, and saving the configuration for network stability and security.

Initial Setup and Console Access

Check Hardware and Power On: Verify the switch model, inspect cables, and ensure indicator lights function correctly. Connect via Console: Use a rollover cable and terminal software like PuTTY. Set the serial connection to 9600 bps to access the CLI.

Enter Privileged EXE

C Mode: Type enable at the prompt to access Switch# mode, then enter Global Configuration Mode with configure terminal.

Basic Configuration



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Set Hostname: Assign a unique, professional hostname to identify the switch in the network: CodeCopySwitch(config)# hostname CoreSwitch1"' [^3^] [^2^] Configure Passwords: Set an enable secret for privileged access and line passwords for console and VTY (Telnet/SSH) access: CodeCopyCoreSwitch1(config)# enable secret StrongPass123CoreSwitch1(config)# line console 0CoreSwitch1(config-line)# password ConsolePassCoreSwitch1(config-line)# loginCoreSwitch1(config)# line vty 0 4CoreSwitch1(config-line)# password VTYPassCoreSwitch1(config-line)# login"' [^3^] [^2^] Assign Management IP: Configure an IP address on the management VLAN to allow remote access: CodeCopyCoreSwitch1(config)# interface vlan 1CoreSwitch1(config-if)# ip address 192.

168. 1. 10 255.

255. 255. 0CoreSwitch1(config-if)# no shutdownCoreSwitch1(config)# ip default-gateway 192.

168. 1. 1"' [^1^] [^2^] VLAN and Port ConfigurationCreate VLANs: Define VLANs to segment network traffic: CodeCopyCoreSwitch1(config)# vlan 10CoreSwitch1(config-vlan)# name SalesCoreSwitch1(config)# vlan 20CoreSwitch1(config-vlan)# name Engineering"' [^4^] Assign Ports: Configure access and trunk ports: CodeCopyCoreSwitch1(config)# interface gigabitEthernet 0/1CoreSwitch1(config-if)# switchport mode accessCoreSwitch1(config-if)# switchport access vlan 10CoreSwitch1(config)# interface gigabitEthernet 0/24CoreSwitch1(config-if)# switchport mode trunk"' [^4^] [^2^] Security and OptimizationDisable Unused Ports: Shut down unused interfaces to prevent unauthorized access: CodeCopyCoreSwitch1(config)# interface range gigabitEthernet 0/2-23CoreSwitch1(config-if-range)# shutdown"' [^2^] Enable Port Security: Limit MAC addresses per port to enhance security: CodeCopyCoreSwitch1(config)# interface gigabitEthernet 0/1CoreSwitch1(config-if)# switchport port-securityCoreSwitch1(config-if)# switchport port-security maximum 2CoreSwitch1(config-if)# switchport port-security violation restrict"' [^2^] Verification and Saving ConfigurationVerify Settings: Use commands like show vlan brief, show running-config, and show ip interface brief to confirm configurations.

Save Configuration: Ensure changes persist after reboot: CodeCopyCoreSwitch1# write memory"' [^3^] [^2^] Optional Advanced FeaturesConfigure SSH: For secure remote management, generate RSA keys and enable SSH access. Spanning Tree Protocol (STP): Configure STP to prevent loops in the network.

Net

Flow or SNMP: Enable monitoring for traffic analysis and network management. By following these steps, a Cisco core switch can be properly configured for management, VLAN segmentation, port security, and network efficiency, ensuring a stable and secure network environment.

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Article Content

How to Configure a Cisco Switch in 10 Steps

Looking to configure a Cisco switch for the first time? If the answer is YES, you''re in the right place. In this post, I''m going to show you how to configure a Cisco switch step-by-step.

How to Configure Cisco Switches: A Step-by-step Guide

There are two different interfaces to configure a Cisco switch, via the modern Web Console or through the more versatile Cisco IOS Command-Line Interface. In this step-by-step guide

How to Configure a Cisco Switch: Initial Setup Guide

Configuring a Cisco switch for first-time deployment usually includes console access, basic security, setting a management IP, VLAN preparation, trunk uplinks, and enabling SSH for

Configuring the Switch Using the Web User Interface

After you complete the hardware installation, you need to setup the switch with configuration required to enable traffic to pass through the network. On your first day with your new device, you can perform a

Basic Switch Configuration in Cisco

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 filtering and forwarding the

Basic Switch Configuration Guide with Examples

This tutorial explained the essential switch configuration commands. With these fundamental configuration commands, you can manage a Cisco switch effectively in any networking

Creating a Base Configuration for a Cisco IOS Switch: A Step-by-Step

When you deploy a new switch, it''s important to configure it properly to ensure optimal performance, security, and functionality. This guide will walk you through the essential steps for setting up a base

Configure a Layer 2 VPN Switchport using CLI template

The following configures a Layer 2 VPN Switchport to integrate a multipoint SD-WAN instance and bridge-domain. This configuration sets up GigabitEthernet0/1/2 as an access port for

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MS Layer 3 Switching and Routing

Layer 3 routing capabilities are available on most Cisco Meraki switches. This allows the switches to route traffic between VLANs in a campus network without the need for an additional layer

Meraki Switches

Meraki cloud-managed network switch models Customers choose Meraki network switches for any location, topology, or connectivity need because they are easy

Cisco Core Security: Secure Network Access Using Cisco ISE

In this course, Cisco Core Security: Secure Network Access Using Cisco ISE, you will gain the ability to leverage Cisco ISE to implement 802.1X. First, you will learn the foundational

Re: Cisco Nexus 9000 switch

Which switch model? What target configuration are you investigating? What is your intended behavior for this configuration? Did you have any particular “limitations” in mind, like

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Connecting Multiple switches to core : r/networking

I''ve worked in large manufacturing facilities where the Core is connected to Distribution switches and they connect the standard layer 2 access switches. My boss was always on at me “upgrade the core

Cisco Catalyst 9500 Series Switches Data Sheet

The Cisco® Catalyst® 9500 Series switches are the next generation of enterprise-class core and aggregation layer switches, supporting full programmability and serviceability. Based on an

Configuring Port Channels

This chapter describes how to configure port channels and to apply and configure the Link Aggregation Control Protocol (LACP) for more efficient use of port channels in the Cisco NX-OS devices. On a

Cisco Catalyst 3560-CX Series Switches

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Release Notes for Cisco IOS Release 15.2 (7)E5 Catalyst 3560-CX and 2960-CX Switch Hardware Installation Guide --- Switch Installation Consolidated Platform Configuration Guide, Cisco

The 9 Best Enterprise Network Switches for 2026

Generally speaking, enterprise-level switches are rack-mounted. When used as a backbone switch, it can support over 500 information points. According to the three-layer network

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This document is for preliminary research. Verify specifications against current standards, product documentation and project requirements.

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