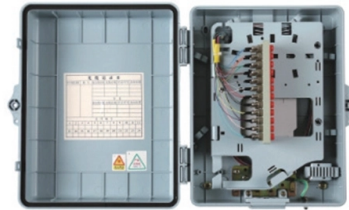


Configuration of Security Core Switch



AI Overview

Configuring a core security switch involves initial setup, VLAN and port configuration, management IP assignment, and implementing security best practices like SSH, AAA, and SNMP controls.

Initial Access and Basic Setup

- Connect to the switch using a console cable or SSH if already configured. Use a terminal emulator like PuTTY or Tera Term to access the CLI.
- Power on the switch and verify indicator lights to ensure hardware functionality.
- Set a hostname and domain name for the switch to identify it on the network.
- Assign a management IP address on the management VLAN to allow remote administration.
- Set privileged EXEC mode password using `enable secret` with strong encryption to secure administrative access.

VLAN and Port Configuration

- Create VLANs to segment network traffic and limit broadcast domains using `vlan database` commands.
- Assign ports to VLANs: Access ports for single VLANs and trunk ports for multiple VLANs.
- Configure Spanning Tree Protocol (STP) to prevent loops in the network.
- Disable unused ports to reduce attack surfaces.

Security Hardening

- Enable SSH access and disable Telnet to secure remote management.
- Configure AAA (Authentication, Authorization, Accounting) using TACACS+ or RADIUS for centralized user management.
- Encrypt all passwords with `service password-encryption` to prevent exposure in configuration files.
- Configure SNMP securely: Use strong community strings, restrict access to management hosts, and apply ACLs.
- Apply access control lists (ACLs) to limit traffic to critical management interfaces.

Final Steps

- Assign a default gateway for the switch to communicate outside its subnet.
- Save the configuration using `write memory` or `copy running-config startup-config` to ensure changes persist after reboot.
- Optionally configure NetFlow or other monitoring tools to track traffic and detect anomalies.

By following these steps, your core switch will be secure, manageable, and optimized for network performance, providing a strong foundation for your LAN infrastructure.

Article Content

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

By following these steps, you can ensure that your switch is properly configured with a hostname, passwords for security, IP addressing, remote access, and VLANs.

8 Steps to configure your network switch

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ECS5520 Series CLI Reference Guide

Section III “Appendices” — Includes information on troubleshooting switch management access. This guide focuses on switch software configuration through the CLI. For information on how

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Learn how to set up a base configuration for network switches. Secure, optimize, and enable remote access with our step-by-step guide.

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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.

Introduction to Core Switch Configuration

A switch that functions as part of a router and operates at the third layer of the OSI network standard model, the network layer. The most important purpose of the layer 3 switch is to speed up the data

What Is a Core Switch in Networking?

By carefully selecting, configuring, and managing your core switch, you can ensure optimal performance, scalability, and security for your network. Frequently Asked Questions (FAQs)

Basic Switch Security Concepts Explained

In this article, we will explore basic switch security concepts and best practices to ensure a secure network environment.

How to Configure a Cisco Switch (step by step)

If you're looking to configure a switch for the first time, this post is for you. Learn step-by-step configuration commands for Cisco IOS Switches.

CIS Control 11: Secure Configuration for Network Devices, such as ...

Establish, implement, and actively manage (track, report on, correct) the security configuration of network infrastructure devices using a rigorous configuration management and change control

Security Hardening Checklist Guide for Cisco

Network infrastructure devices (routers, switches, load balancers, firewalls etc) are among the assets of an enterprise that play an important role in security and thus

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S Series Switches Security Hardening Guide (V200)

This document is intended for network engineers responsible for switch configuration and management. You should be familiar with basic Ethernet knowledge and have extensive experience in network

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Core Switch Reference Configuration | Validated Solution Guide

The Core Switch Reference Configuration section provides a reference CLI configuration of the core switches as configured previously in this NetConductor Deployment guide.

Best Practices for Securing Cisco Switches in Enterprise Environments

By implementing these best practices, organizations can significantly enhance the security posture of their Cisco switches, ensuring a robust defense against potential threats.

Contact Us

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