Example of Core Switch Configuration



Overview

The following example automatically copies any core files immediately after they are created to the /tftpboot/cores directory on a host with SCP as user mdsadmin.

Key Takeaways

A core switch can be configured with VLANs, SVIs, interconnections, and OSPF routing to serve as the backbone of a network.

Basic Configuration Steps

Enter Global Configuration ModeBashCopyenableconfigure terminal Configure VLANs and InterfacesCreate VLANs for interconnection with edge devices or firewalls: BashCopyvlan 10name LINK_TO_EDGEexitvlan 20name LINK_TO_FIREWALLexit Assign interfaces to VLANs: BashCopyinterface GigabitEthernet1/0/1switchport mode trunkswitchport trunk allowed vlan 10,20description LINK_TO_EDGE_SWITCHexitinterface GigabitEthernet1/0/2switchport mode trunkswitchport trunk allowed vlan 10,20description LINK_TO_FIREWALLexit Create SVIs (Switched Virtual Interfaces)SVIs provide Layer 3 connectivity for VLANs: BashCopyinterface Vlan10ip address 10.

0. 10. 1 255.

255. 255. 0no shutdownexitinterface Vlan20ip address 10.

0. 20. 1 255.

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255. 255. 0no shutdownexit Configure Port-Channels for RedundancyAggregate multiple links between core switches: BashCopyinterface Port-channel1description CORE_LINK_TO_SW2switchport mode trunkswitchport trunk allowed vlan 10,20exitinterface GigabitEthernet1/0/3channel-group 1 mode activeexitinterface GigabitEthernet1/0/4channel-group 1 mode activeexit Enable Routing Protocol (OSPF)Configure OSPF to advertise VLAN networks: BashCopyrouter ospf 1network 10.

0. 10. 0 0.

0. 0. 255 area 0network 10.

0. 20. 0 0.

0. 0. 255 area 0exit Optional: VPN Instance for Route IsolationOn some switches (e.g., Huawei), create a VPN instance to separate public and private routes: BashCopyip vpn-instance vpn1interface Vlan10ip binding vpn-instance vpn1exitinterface Vlan20ip binding vpn-instance vpn1exit Verify ConfigurationBashCopyshow vlan briefshow ip interface briefshow ip routeshow running-config Key ConsiderationsRedundancy: Use port-channels and multiple links between core switches to prevent single points of failure.

Layer 3 Routing: SVIs and OSPF ensure inter-VLAN and inter-switch connectivity. Security: Limit VLAN access and consider ACLs on SVIs for traffic control. Scalability: Core switches should handle high throughput and support future VLAN expansion.

This configuration provides a functional core switch setup with VLAN segmentation, Layer 3 routing, redundancy, and optional VPN isolation, suitable for enterprise or lab environments.

Article Content

How to Configure a Cisco Switch (step by step)

Virtual LansAccess & Trunk PortsVlan InterfacesDHCP ServerPort Channel InterfacesSsh Access with Local Aaa AuthenticationSummaryCisco IOS switches can be configured as DHCP Servers to provide provide IP addresses and other IP settings to DHCP Clients. In our topology, R2 was been configured as a DHCP Client. Let''s configure a DHCP pool of IP address that the CORE switch can use to assign IP addresses to DHCP clients on VLAN 20. Let''s enable R20 to obtain an IP address via D...See more on howtorouteswitch Networks Training

Basic Cisco Switch Configuration Example in 10 Steps

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STEP1: Connect to the device via console. Use a terminal emulation software such as PuTTY and STEP2: Set up a hostname for the particular switch to distinguish it in the network. Switch(config)# STEP3: Configure an administration password (enable secret password) access-switch1(config)# STEP5: Define which IP addresses are allowed to access the switch via Telnet. access STEP6: Assign IP address to the switch for management. !Management IP is assigned to Vlan 1 See full list on networkstraining Scribd

Core Switch Configuration Guide

This document outlines the configuration steps for a core switch in a server room, including connecting via serial cable, assigning hostnames, creating user accounts with specific password requirements,

Configuring Cores

The following example automatically copies any core files immediately after they are created to the /tftpboot/cores directory on a host with SCP as user mdsadmin.

8 Steps to configure your network switch

Learn how to setup a network switch with ease. Switches allow you to send and receive information efficiently and securely. Get setup today!

Understanding the Core Switch: Key Differences and Uses

Q: What can be given as an example of switches for the core layer? A: Examples of switches for core layer managed switches include those with

Configuring the Core Switch

In this scenario, IP addresses of the interfaces connecting the core switch to the BRASs and firewalls and OSPF need to be configured on the core switch, so as to implement connectivity

Introduction to Core Switch Configuration

In this switching, transmission is determined not only by MAC address (layer 2 bridge) or source/destination address (layer 3 routing), but also by TCP/UDP (layer 4) using port Numbers that

serenalindquist99/server-core-switch-lab

This lab simulates a real-world enterprise network upgrade involving the replacement and configuration of core switches, port migration, ACL deployment, and rollback planning.

The Ultimate Guide to Huawei MA5800 OLT Configuration:

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The high-end models also support 2 x 100GE uplink ports, providing massive uplink bandwidth for enterprise core routing and carrier-grade routing reliability . Deployment Scenarios and Configuration

Catalyst 2948G-L3 Sample Configurations

Introduction This document provides three sample configurations for the Catalyst 2948G-L3. The configurations are a single-VLAN network, a multi-VLAN network, and a multi-VLAN distribution layer

Understanding the Core Switch: Key Differences and Uses

Explore the core switch''s role as the backbone of your network. Discover key differences, uses, and insights into layer 3 core switch technology.

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

Guide to Basic Switch Configuration | Auvik

Switch configuration on your own can seem like a daunting task. Use this handy guide to get your network switch up and running with ease.

Cisco Switch Initial Configuration Template

Cisco Switch Initial Configuration Template Introduction This configuration template provides a structured approach to configure a network device with necessary settings. It ensures proper

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

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

Cisco Secure Firewall Advanced Threat Protection

Cisco''s Secure Firewall hardware and software options enhance your security to block more threats and swiftly respond to breaches.

Features and Applications of Core Switches

Core Switches also provide intelligent routing, QoS assurance, security, scalability, and manageability. A well-matched Core Switch configuration is a strong support for building powerful,

Simplify Network Configuration with Switch Templates: A

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Check out our guide on simplifying your network configuration with Switch Templates! Switch templates are a valuable tool for network administrators.

Core Switch Explained: Key Functions and Benefits

Discover what a Core Switch is, its pivotal role in network architecture, and how it boosts performance and reliability in your data infrastructure.

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

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