

Article Overview

Core switch interface configuration involves setting up VLANs, VLAN interfaces (SVIs), IP addresses, interconnections with other network devices, and routing protocols like OSPF to ensure proper network connectivity and segmentation.

Step 1: Access the Core Switch

Connect to the core switch using one of the following methods:

- o Console Cable: Direct connection via the console port using a terminal emulator like PuTTY or Tera Term ().
- o SSH: Remote access if the switch already has an IP address and SSH enabled.
- o Web Interface: Optional for modern switches with GUI management.

Step 2: Basic Switch Configuration

- o Set Hostname: Identify the switch in the network.

```
Switch> enableSwitch# configure terminalSwitch(config)# hostname Core-Switch
```

- o Set Enable Password: Secure privileged commands.

```
Core-Switch(config)# enable secret your_password_here
```

- o Configure Console and VTY Passwords: Protect local and remote access.

```
Core-Switch(config)# line console 0Core-Switch(config-line)# password console_password_hereCore-Switch(config-line)# loginCore-Switch(config-line)# exitCore-Switch(config)# line vty 0 4Core-Switch(config-line)# password vty_password_hereCore-Switch(config-line)# loginCore-Switch(config-line)# exit
```

Step 3: VLAN and Interface Configuration

- o Create VLANs for interconnections with BRASs, firewalls, and other devices.

```
Core-Switch(config)# vlan 10Core-Switch(config-vlan)# name BRAS-InterconnectCore-Switch(config)# vlan 20Core-Switch(config-vlan)# name Firewall-Interconnect
```

- o Assign Interfaces to VLANs:

```
Core-Switch(config)# interface gig0/1Core-Switch(config-if)# switchport mode accessCore-Switch(config-if)# switchport access vlan 10Core-Switch(config-if)# exit
```

- o Configure VLAN Interfaces (SVIs) and bind them to VPN instances if needed:

```
Core-Switch(config)# interface vlan 10Core-Switch(config-if)# ip address 192.168.10.1 255.255.255.0Core-Switch(config-if)# vpn-instance vpn1Core-Switch(config-if)# exit
```

Step 4: Routing Configuration

Core Switch Interface Configuration Types

o Enable OSPF and configure routes for connectivity between user networks and egress networks:

```
Core-Switch(config)# router ospf 1Core-Switch(config-router)# network 192.168.10.0 0.0.0.255 area 0Core-Switch(config-router)# network 192.168.20.0 0.0.0.255 area 0Core-Switch(config-router)# exit
```

Step 5: Verification

o Check VLANs and interfaces:

```
Core-Switch# show vlan briefCore-Switch# show ip interface brief
```

o Verify OSPF neighbors and routes:

```
Core-Switch# show ip ospf neighborCore-Switch# show ip route ospf
```

Best Practices

o Use descriptive VLAN names for clarity.

o Isolate public and private traffic using VPN instances.

o Secure management access with strong passwords and SSH.

o Document interface assignments and IP addressing for troubleshooting and maintenance (). This configuration ensures that the core switch can efficiently route traffic between user networks, firewalls, and egress points while maintaining network segmentation and security.

To configure a physical interface (port), specify the interface type, module number, sub-slot number, and device port

Discover how to configure network switch interfaces for optimal performance. Learn why proper setup is crucial for

Switch ports are Layer 2-only interfaces associated with a physical port. Switch ports belong to one or more VLANs. A

Configure CSS on core switches and stacking on aggregation switches, and configure MAD and uplink and downlink Eth-Trunk

There is no doubt that the more supported module types (such as LAN interface module, WAN interface module, ATM interface

Ethernet Switches are broadly categorized into two main categories - Modular and Fixed Configuration. Modular

Core Switch Interface Configuration Types

This article focuses on the hierarchical internetworking and core switch vs access switch differences. We also

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

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

Core Switches also provide intelligent routing, QoS assurance, security, scalability, and manageability. A well

Compare Access, Distribution, and Core switches: understand their roles, features, and differences in enterprise network hierarchy.

Configure interfaces for interconnecting the core switch with BRASSs. # Create interconnection VLANs on the core

Configuring Interfaces A switch's main function is to relay frames from one data link to another. To do that,

To configure a physical interface (port), specify the interface type, stack member number (only stacking-capable switches), module

There are different types of enterprise switches that perform various roles in these layer-based or hierarchical ethernet networks.

Interface Nomenclature Guide of Router and Switch Routers and switches support various types of interfaces for

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