

Basic configuration of core switches includes

Article Overview

Core switches require initial setup including hostname assignment, password configuration, VLAN setup, and management IP configuration to ensure secure and efficient network operation.

Step 1: Access the Switch

Connect to the switch using one of the following methods:

- o Console Cable: Direct connection via the console port using terminal emulation software like PuTTY or Tera Term .
- o SSH: If the switch already has an IP address and SSH enabled, remote login is possible .
- o Web Interface: Some modern switches allow browser-based management by entering the switch's IP address .

Step 2: Set Hostname

Assign a meaningful hostname to identify the switch in the network:

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

Use a consistent naming convention for multiple switches, e.g., SFO-SW-01 or NYC-SW-01 .

Step 3: Configure Passwords

- o Enable Secret Password: Protects privileged EXEC mode.

```
CodeCopyCore-Switch(config)# enable secret YourStrongPassword
```

- o Console Password: Secures local console access.

```
CodeCopyCore-Switch(config)# line con 0Core-Switch(config-line)# password ConsolePasswordCore-Switch(config-line)# loginCore-Switch(config-line)# exit
```

- o VTY Password: Secures remote access via Telnet or SSH.

```
CodeCopyCore-Switch(config)# line vty 0 4Core-Switch(config-line)# password VTYPasswordCore-Switch(config-line)# loginCore-Switch(config-line)# exit
```

For enhanced security, consider using an external AAA server .

Step 4: Configure Management IP

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Assign an IP address to the management VLAN to enable remote management:

```
CodeCopyCore-Switch(config)# interface vlan 1Core-Switch(config-if)# ip address 192.168.1.10 255.255.255.0Core-Switch(config-if)# no shutdown
```

Ensure the default gateway is set for network reachability:

```
CodeCopyCore-Switch(config)# ip default-gateway 192.168.1.1
```

Step 5: VLAN and Trunk Configuration

o Create VLANs:

```
CodeCopyCore-Switch(config)# vlan 10Core-Switch(config-vlan)# name SalesCore-Switch(config-vlan)# exit
```

o Configure Trunk Ports:

```
CodeCopyCore-Switch(config)# interface gig0/1Core-Switch(config-if)# switchport mode trunkCore-Switch(config-if)# switchport trunk encapsulation dot1q
```

This ensures proper VLAN tagging and inter-switch communication .

Step 6: Enable SSH for Secure Remote Access

Generate RSA keys and enable SSH:

```
CodeCopyCore-Switch(config)# crypto key generate rsaCore-Switch(config)# ip ssh version 2
```

This allows encrypted remote management and enhances security .

Step 7: Save Configuration

After completing the setup, save the configuration to prevent loss on reboot:

```
CodeCopyCore-Switch# write memory
```

or

```
CodeCopyCore-Switch# copy running-config startup-config
```

Step 8: Verification

Check the configuration and connectivity:

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- o show running-config - Verify current settings.
- o ping - Test network reachability.
- o show vlan brief - Confirm VLAN assignments.
- o show ip interface brief - Verify IP addresses and interface status . Following these steps ensures that your core switch is secure, manageable, and ready for integration into the network, providing a solid foundation for further advanced configurations like QoS, spanning-tree, and routing.

In this switching, transmission is determined not only by MAC address (layer 2 bridge) or source/destination address (layer 3

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

Basic Switch Configuration Guide with Examples A Cisco switch is different from a regular plug-and-play switch. It

This tutorial explains basic switch configuration commands in detail with examples.

The switch is a network device that is used to segment the networks into different subnetworks called subnets or LAN

Discover what a core switch does in a 3-tier network model. Learn about ASIC routing, collapsed core vs dedicated

If necessary, refer to the IP configuration chapters in the Cisco IOS XE IP Routing Protocols Configuration Guide, Release 2, for

Catalyst switch administration commonly includes management interface and default gateway configuration, speed and duplex

In this detailed guide, we'll walk you through the process of basic configuration for Cisco switches, covering everything

Explore the core switch's role as the backbone of your network. Discover key differences,

Basic configuration of core switches includes

Unlike other lower class switch vendors (which are plug-and-play), the Cisco switch needs some initial basic configuration in order to

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

The many configuration modes included the interface configuration, the global configuration mode, the privileged

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

Web: <https://bssoda.pl>

